UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (US EPA)
REGION 6, 1445 ROSS AVENUE, DALLAS, TX 75202

EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT (EPCRA) SECTION 313 INSPECTION REPORT

Report date: November 12, 2013
Revised February 25, 2014

I. FACILITY INSPECTED

Inspection date: July 17, 2013

Name & address:

(facility location address shown on Form R)
Oklahoma Pole & Lumber Co.
Hwy 70 E. 305 Silvey Road
Broken Bow, OK 74728

(More correct address)
Oklahoma Pole & Lumber Co.
305 Silvey Road
Broken Bow, OK 74728

Mailing address:

(office location)
Oklahoma Pole & Lumber Co.
300 North Broadway
Broken Bow, OK 74728

Parent:

No US parent

II. SEND REPLY TO

The reply to the inspection report should be sent to:

Rick Worley, President
Oklahoma Pole & Lumber Co.
300 North Broadway
Broken Bow, OK 74728
580-236-0788
okpl@pine-net.com

The senior manager at the facility is:

Rick Worley, President
Oklahoma Pole & Lumber Co.
300 North Broadway
Broken Bow, OK 74728
580-236-0788
okpl@pine-net.com

III. INTRODUCTION

EPCRA (Emergency Planning and Community Right to Know Act) Section 313 is also referred to as the TRI (Toxic Release Inventory).

This report documents the July 17, 2013, Emergency Planning and Community Right to Know Act (EPCRA) Section 313 inspection of the Oklahoma Pole & Lumber Co. located in Broken Bow, Oklahoma. The inspection was to determine compliance with EPCRA Section 313 TRI (Toxic Release Inventory) reporting requirements. The inspection covered the reporting years 2008 to 2012.

The Oklahoma Department of Environmental Quality was notified prior to the inspection (Attachment 1)

The following information applies to the facility:

TRI identification number: 74738klhmphwy7e
NAICS code: 321114, wood preserving
DUNS number: NA
Lat: 34.0233 (Attachment 2)
Lon: -94.72982 (Attachment 2)
Web site: none
Facility/parent state of incorporation: Oklahoma

IV. SUMMARY OF FINDINGS

The facility exceeded the 0.1 gram threshold for dioxin and dioxin like compounds for reporting years 2008 to 2012 and did not report the chemical category to the TRI database. Details are shown in Section J starting on page 9.

The facility reported one chemical 26 days late for reporting year 2008. Details are shown in Section H starting on page 7.

The facility reported four chemicals 364 days late for reporting year 2009. Details are shown in Section H starting on page 7.

Chemical release amounts and calculations were not provided for reporting years 2008, 2009 and 2010. Details are shown in Section B starting on page 6 and Section L starting on page 11.

V. BUSINESS RELATED INFORMATION

Mr. Rick Worley purchased the facility in 2000.

The facility treats pine electrical poles with pentachlorophenol.

The facility is a treatment only plant. The poles are owned by the customers.

VI. PRE AND POST INSPECTION CONTACTS

Date	Type of contact	Person	Comments
6-18-2013	Phone to	Jana Warren, Consultant	Verbal notice of inspection.
6-18-2013	Email to	Jana Warren	Sent contact information.
6-18-2013	Phone to	Jami Murphy, OK-DEQ	Notification of upcoming inspection.
6-19-2013	Email & USPS	Rick Worley Jana Warren Stuart McBride	Notification of inspection time and date (Attachment 3)
6-19-2013	Email from	Stuart McBride	Request for copy of the inspection checklist.
6-19-2013	Email to	Stuart McBride	Sent copy of the inspection checklist.
6-xx-2013	Phone to	Jana Warren	Requested a change in the inspection date.

Date	Type of contact	Person	Comments
7-1-2013	Voice mail from	Rick Worley	Change in inspection date. Requested July 17th
7-1-2013	Email from	Jana Warren	Suggested July 17th for the revised inspection date.
7-9-2013	Phone from	Jana Warren	Confirmed change in the inspection date.
7-9-2013	Email to	Jana Warren, Jami Murphy	Confirmed change in inspection date.
7-9-2013	Email from	Jami Murphy	July 17th doesn't work for her.
7-9-2013	Phone to	Jami Murphy	July 17th doesn't work for her.
7-9-2013	Email from	Jana Warren	Confirmed the July 17th date.
7-9-2013	Email to	Rick Worley	Confirmed July 17th date.
7-12-2013	Letter to	KMG-Bermuth	Request for chemical information (Attachment 4).
7-23-2013	Letter from	Keller & Heckman	Sent information for KMG-Bermuth (Confidential Information Envelope).
7-25-2013	Email to	Jami Murphy OK-DEQ	Sent copy of information received from KMG-Bermuth (Confidential Information Envelope).
9-20-2013	Email to	Jana Warren	Request to clarify 2011 & 2012 Dura-Treat 40 usage.
9-20-2013	Email from	Jana Warren	Reply to request for 2011 & 2012 clarification (Attachment 5).

VII INSPECTOR

Lawrence V. Stranne, P.E.
EPCRA 313 Inspector
US EPA Region 6
214-665-7337
Fax: 214-665-6655
E-mail: stranne.lawrence@epa.gov

VIII. PERSONS INTERVIEWED

Rick Worley, President
Oklahoma Pole & Lumber Co.
300 North Broadway
Broken Bow, OK 74728
580-236-0788
okpl@pine-net.com

A business card was not available.

IX. ENVIRONMENTAL CONSULTANTS USED FOR TRI REPORTING

(Form A/R Technical Contact)
Jana S. Warren, Owner
Vital Environmental Consulting
7656 CR 452 West
Laneville, TX 75667
903-746-1349
Fax: 903-854-2312
Email: jana@vitalenv.com
Web site: www.vitalenv.com

Information from the Vital Environmental Consulting web site is shown in Attachment 6.

Stuart McBride, Vice President
Ridgeline Engineering LLC
101 North Austin Street, Suite 1
Denton, TX 76201

Information on Ridgeline Engineering is shown in Attachment 7.

Reporting year 2009 was the first year that Ms. Warren was shown as the Technical Contact.

Mr. Kevin Ware of KJ Environmental Management in Denton, Texas was shown as the 2008 Technical Contact

X. INSPECTION

A. OPENING CONFERENCE

After arriving at the facility at approximately 1:00 pm on July 17, 2013, I presented my credentials to Mr. Worley. The purpose of the inspection was explained as a determination of compliance with EPCRA Section 313 toxic chemical release reporting requirements for the reporting years 2008 to 2012.

The records review was conducted at Mr. Worley's in-town office at 300 North Broadway.

The plant tour was conducted at the treating plant at 305 Silvey Road.

The facility's first TRI report was filed for reporting year 2008.

The information sheets for the following areas were given to the facility:

EPCRA Section 313 Region 6 staff
U.S. EPA Small Business Resources
Superfund, TRI, EPCRA, RMP& Oil Information Center
Chemical Safety Awareness for Industrial and Municipal Facilities

Attachment 8 is a map of the facility.

A process flow diagram for the facility was not readily available.

B. STATUS OF INFORMATION REQUESTED PRIOR TO THE INSPECTION

In an email and USPS letter dated June 19, 2013, Mr. Worley was requested to provide information at the time of the inspection (Attachment 3). All of the information requested was available with the exception of the release amounts and release calculations for reporting years 2008, 2009 and 2010..

C. FACILITY OWNERSHIP INFORMATION

Mr. Worley has owned and operated the facility during the period of the inspection, reporting years 2008 to 2012.

D. FACILITY INFORMATION, EMPLOYEES AND GROSS SALES

The facility currently has approximately 13 employees.

Mr. Worley provided the following number of employees and sales (Attachment 9).

Reporting year	More or less than 50 employees	More or less than $10 million sales
2112	Less than	Less than
2011	Less than	Less than
2010	Less than	Less than
2009	Less than	Less than
2008	Less than	Less than

E. RAW MATERIAL

The major raw materials are:

Lumber poles	Pentachlorophenol **Note 1**	Diesel fuel

Note 1: The pentachlorophenol used by the facility is Dura-Treat 40 manufactured by KMG. A label for Dura-Treat 40 is shown in Attachment 10.

F. PROCESS DESCRIPTION

A process description for the chemical treatment is shown in Attachment 11. The facility uses the full cell treatment process.

Prior to treatment a flat surface is milled at the top of the poles and holes are drilled for mounting the cross arm.

After treatment the poles are core drilled for a sample that in analyzed in the on-site laboratory. The holes are than filled with treated plugs.

G. FINAL PRODUCTS

The final products are treated wooden telephone/electric power poles.

H. ORIGINAL POSTMARK DATES OF SUBMITTED FORM R's/A's

The original postmark dates of the Form R's submitted for reporting years 2010, 2011 and 2012 were on or before the final due date (Attachment 12).

The following chemicals were reported late (Attachment 12).

Reporting year	Chemical	Due date	Original post mark date	Period late
2008	Pentachlorophenol	July 1, 2009	July 27, 2009	26 days
2009	1,2,4-trimethylbenzene	July 1, 2010	July 1, 2011	364 days
2009	n-hexane	July 1, 2010	July 1, 2011	364 days
2009	Naphthalene	July 1, 2010	July 1, 2011	364 days
2009	Pentachlorophenol	July 1, 2010	July 1, 2011	364 days

I. CHEMICALS REPORTED TO THE TRI DATABASE

The facility reported the chemicals shown in the table below to the TRI database (Attachment 13).

Chemical usage is shown in Attachment 14, 15, 16 17 and 18.

Chemical	2012 pounds used	2011 pounds used	2010 pounds used	2009 pounds used	2008 pounds used	Type of use
1,2,4-trimethylbenzene	Reported Form A 65,483	Reported Form A 59,007	Reported Form A 53,177	Reported Form A 49,118	**Note 3**	Process
n-hexane	Reported Form A 65,485	Reported Form A 59,007	Reported Form A 53,177	Reported Form A 49,118	**Note 4**	Process
Naphthalene	Reported Form A 36,017	Reported Form A 32,454	Reported Form A 29,247	Reported Form A 27,015	21,148 **Note 5**	Process
Pentachlorophenol 87-86-5	Reported 430,416 **Note 1**	Reported 430,416 **Note 1**	Reported 389,424	Reported 348,432	Reported 307,440 **Note 2**	Process

Note 1: In an email dated September 20, 2013, Ms. Jana Warren (consultant) was asked to clarify if the same amounts were used in both 2011 and 2012 (Attachment 5). She indicated that the facility verified that the same amounts were correct (Attachment 5).

Note 2: The usage of pentachlorophenol was calculated as follows (Attachment 18):

(75,000 gal) * (9.76 lb/gal) * (0.42) = 307,440 lb

Note 3: Mr. Worley provided a copy of the MSDS for diesel fuels published by Valero (Attachment 19). He explained that this was the supplier that was used during reporting year 2008. The MSDS does not list 1,2,4-trimethylbenzene as a constituent of diesel fuel.

Note 4: Mr. Worley provided a copy of the MSDS for diesel fuels published by Valero (Attachment 19). He explained that this was the supplier that was used during reporting year 2008. The weight percentage for n-hexane is shown as 0 to 1 percent. The de minimis value for n- hexane is 1.0 percent. The usage of diesel fuel was calculated as follows (Attachment 18):

(581,506 gal) * (7.3392 lb/gal) = 4,267,789 lb

Utilizing the formula on page 23 of the booklet, Toxic Chemical Release Inventory Reporting Forms and Instruction, Revised 2012 Version it was determined that the

reportable usage of n-hexane was significantly below the 25,000 pound process use threshold (Attachment 20).

Note 5: Mr. Worley provided a copy of the MSDS for diesel fuels published by Valero (Attachment 19). He explained that this was the supplier that was used during reporting year 2008. The weight percentage naphthalene is shown as 0 to 1 percent. The de minimis value of naphthalene is 0.1 percent. The usage of diesel fuel was calculated as follows (Attachment 18):

(581,506 gal) * (7.3392 lb/gal) = 4,267,789 lb diesel

Utilizing the formula on page 23 of the booklet, Toxic Chemical Release Inventory Reporting Forms and Instruction, Revised 2012 Version the reportable usage of naphthalene was calculated as follows (Attachment 20):

[(4,267,789) * (1.00 – 0.099)] / (1.00 – 0) = 3,845,008

(3,845,008) * [(1.00 +0.1) / 2] = 21,148 lb naphthalene

J. ADDITIONAL REPORTABLE CHEMICALS USED BY THE FACILITY

Attachment 21 explains the presence of hexachlorobenzene (HCB) and dioxins/furans (CDDs/CDFs) in pentachlorophenol.

Attachment 22 explains that "pentachlorophenol also contains chlorinated dibenzodioxins and chlorinated dibenzofurans (CDDs and CDFs) and hexachlorobenzene (HCB) as contaminants formed during the manufacture process".

The facility has used the following reportable chemicals not shown in the above table:

Chemical	2012 grams used	2011 grams used	2010 grams used	2009 grams used	2008 grams used	Type of use
Dioxin & dioxin like compounds N150 0.1 gm threshold (Attachment 23) **Note 1 & Note 2**	70,867 **Note 3**	70,867 **Note 3**	64,117 **Note 3**	57,368 **Note 3**	50,619 **Note 3**	Process
Chemical	2012 pounds used	2011 pounds used	2010 pounds used	2009 pounds used	2008 pounds used	Type of use
Hexachlorobenzene 118-74-1 10 lb threshold (Attachment 23) **Note 4**	8.553	8.553	7.738	6.924	6.109	Process

Note 1: Dioxin and dioxin like compounds include chlorinated dibenzofurans (Attachment 24).

Note 2: The chemical usage was calculated as shown below (Attachments CBI, 14, 15, 16, 17 and 18.

Year	Dura Treat 40 Pounds	Dioxin & dioxin like compounds, ppm	Dioxin & dioxin like compounds, pounds	Grams per pound	Dioxin & dioxin like compounds, grams
2012	1,024,800	152.454	156.235	453.59	70,867
2011	1,024,800	152.454	156.235	453.59	70,867
2010	927,200	152.454	141.355	453.59	64,117
2009	829,600	152.454	126.476	453.59	57,368
2008	732,000	152.454	111.596	453.59	50,619

Note 3: The facility exceeded the 0.1 gram threshold for dioxin and dioxin like compounds for reporting years 2008 to 2012 and did not report the chemical category to the TRI database.

Note 4: The chemical usage was calculated as shown below (Attachments CBI, 14, 15, 16, 17 and 18

Year	Dura Treat 40 Pounds	Hexachlorobenze ppm	Hexachlorobenzene pounds
2012	1,024,800	8.346	8.553
2011	1,024,800	8.346	8.553
2010	927,200	8.346	7.738
2009	829,600	8.346	6.924
2008	732,000	8.346	6.109

K. MATHEMATICAL PROCEDURES FOR CALCULATIONS

The mathematical procedures for the usage and release calculations that were provided appear to be acceptable.

L. MATHEMATICAL PROCEDURES FOR USE OF FORM A's

The chemicals shown in the table below were reported on Form A's. Each had threshold values of less than one million pounds and total releases of less than 500 pounds.

Chemical	2012	2011	2010 **Note 1**	2009 **Note 1**
1,2,4-trimethylbenzene	65,483 Threshold lbs. 135 Release lbs	59,007 Threshold lbs. 148 Release lb	53,177 Threshold lbs. Release lb	49,118 Threshold lbs. Release lb
n-hexane	65,485 Threshold lbs. 135 Release lbs	59,007 Threshold lbs. 148 Release lb	53177 Threshold lbs. Release lb	49,118 Threshold lbs. Release lb
Naphthalene	36,017 Threshold lbs. 74 Release lbs	32,454 Threshold lbs. 82 Release lb	29,247 Threshold lbs. Release lb	21,148 Threshold lbs. Release lb

Note 1: No release calculations were provided for 2008, 2009 land 2010.

M. DATA QUALITY OF FORM R's

PENTACHOLOPHENOL

Form R line number	2012 pounds	2011 pounds	2010 pounds	2009 pounds	2008 pounds
5.1 fugitive air	65	62	61	43	309
5.2 stack air	81	78	76	69	NA
5.3 dis-charge to water					
5.4 under-ground injection					
5.5 land on-site					
6.1 transfer POTW					
6.2 transfer off-site	10 5	457	1,535	10	10,890
7A treatment methods on-site					
8.1a wells & landfills on-site					
8.1b other releases on-site	146	140	137	112	309
8.1c wells & landfills off-site					
8.1d other releases off-site					
8.2 energy recovery on-site					
8.3 energy recovery off-site					
8.4 recycled on-site					
8.5 recycled off-site					
8.6 treated on-site					
8.7 treated off-site	15	457	1,535	10	10,890
8.9 production ratio	1.05	1.1	1.5	0.13 **Note 1**	13.16

Note 1: Value appears to be incorrect.

N. METHOD OF FORM R TRANSMITTAL

The 2011 Form R and A's were submitted electronically.

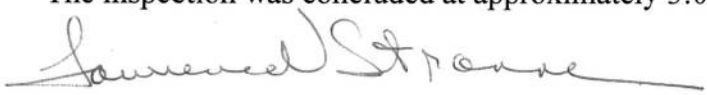
O. LATITUDE AND LONGITUDE

Source	Latitude	Longitude	Comments
Envirofacts	34.0233	-94.72982	(Attachment 2)
Inspector	34-01.349 34.022483	-94-43.643 -94.727383	Readings taken approximately 20 feet north east of the north corner of the larger part of the building (Attachment 25).
Google Maps	34.022299	-94.727456	Center of Manufacture (Attachment 26)

P. CLOSING CONFERENCE

Mr. Worley was cooperative throughout the inspection and tour.

The inspection was concluded at approximately 3:00 pm.



Lawrence V. Stranne, P.E.
EPCRA 313 Inspector

Attachments: Confidential Business Information

1. Notification to the State of Oklahoma
2. Form R lat and lon
3. Notification of inspection to the facility
4. Request for information from KMG-Bermuth
5. Confirmation of same information for two years
6. Web information for Vital Environmental Consulting
7. Web information for Ridgeline Engineering LLC
8. Map of facility
9. Employees and sales
10. Information card for Dura-Treat 40
11. Wood treating process description
12. Envirofacts, postmark dates
13. Envirofacts, chemicals reported
14. 2011 chemicals used
15. 2012 chemicals used
16. 2010 chemicals used

17. 2009 chemicals used
18. 2008 chemicals used
19. MSDS for diesel fuels
20. Calculation instructions
21. Risk assessment for pentachlorophenol
22. Chemicals in pentachlorophenol
23. Threshold amounts
24. Dioxin and dioxin like compounds
25. Inspector's lat and lon
26. Center of manufacture lat and lon

Oklahoma Pole & Lumber Co.
Hwy 70 E. 305 Silvey Road
Broken Bow, OK 74728

Attachments to the
July 9, 2013
EPCRA 313 Inspection Report

Stranne, Lawrence

From: Stranne, Lawrence
Sent: Friday, June 21, 2013 7:03 AM
To: monty.elder@deq.ok.gov
Cc: Murphy, Jami
Subject: Upcoming inspection of Oklahoma Pole and Lumber

Monty Elder
OK Department of Environmental Quality
Oklahoma City, Oklahoma

Monty,

I plan to conduct an EPCRA 313 inspection of the following facility at 1:00 pm on Tuesday, July 9, 2013:

Rick Worley, President
Oklahoma Pole and Lumber Co.
Hwy 70 East, 305 Silvey Road
Broken Bow, OK 74728

Larry

Lawrence V. Stranne, P.E.
Inspector
US EPA (Environmental Protection Agency)
1445 Ross Avenue
Dallas, TX 75202
214-665-7337
E-mail: stranne.lawrence@epa.gov
Fax: 214-665-6655

Attachment 1

EPA United States Environmental Protection Agency

Envirofacts Warehouse | Toxics Release Inventory | Report Error

EZ Query | Batch Reports | Form R Reports NEW

Overview | Law EXIT EPA | Customized Query | State Reports | Query | Model | Feedback | EF Home

TRI FORM R REPORTS

As a result of the TRI Reporting Forms Modification Rule, beginning in reporting year 2005, the Toxics release Inventory Program is no longer collecting latitude and longitude data or EPA program ID data (Including Resource Conservation and Recovery Act (RCRA) IDs, National Pollutant Discharge Elimination System (NPDES) IDs and Underground Injection Code (UIC) IDs) via the FORM R or FORM A Certification Statement. However, this data will still be made available to TRI data users and will be included in TRI data Reports. For those Reports, this data will be obtained from the Facility Registry System (FRS). Latitude and longitude coordinates used to represent TRI facilities are chosen from the FRS using the the "Pick Best" Process. Primary permitting systems supply FRS with the program IDs that are used to represent TRI facilities. The FRS data that are being used to represent this facility are:

Reference Point/Description	Latitude	Longitude	Collection Method	Accuracy Value
ENTRANCE POINT OF A FACILITY OR STATION	34.0233	-94.72982	INTERPOLATION-PHOTO	☐

RCRA ID Numbers

NO DATA

NPDES Permit Numbers

NO DATA

Underground Injection Well Code (UIC) ID Numbers

NO DATA

To correct the FRS latitude, longitude or program ID values click on the "Report an Error" button in the top right corner of this page. Facilities wishing to correct other data elements with the FORM R or FORM A should refer to How to Revise TRI Data.

For more information, see *Collection of Latitude, Longitude and Program ID Data Has Been Discontinued*.

ATTACHMENT 2

To see all the details that are visible on the screen, use the "Print" link next to the map.

Google

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

TRANSMITTED VIA EMAIL AND USPS
okpl@pine-net.com

FILE COPY

June 19, 2013

Rick Worley, President
Oklahoma Pole & Lumber Co.
Hwy 70 E., 305 Silvey Road
Broken Bow, OK 74728

Dear Mr. Worley:

This letter will confirm the Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313 compliance inspection of the Oklahoma Pole & Lumber Co at 1:00 pm on Tuesday, July 9, 2013. The visit is to determine compliance with EPCRA Section 313 toxic chemical release reporting requirements for reporting years 2008 to 2012.

Attached is a listing of information that should be available at the time of the inspection.

EPCRA 313 reporting instructions can be found at http://www.epa.gov/tri/report/index.htm.

If you have any questions please contact me at 214-665-7337 or Dr. Morton E. Wakeland, Jr. at 214-665-8116.

Sincerely,

Lawrence V. Stranne, P.E.
Inspector, Emergency Planning and
Community Right-to-Know Act
Phone: 214-665-7337
Fax: 214-665-6655
E-mail: stranne.lawrence@epa.gov

Attachment

Recycled/Recyclable • *Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)*

Copy to: no attachment
Stuart McBride, Vice President
Ridbeline Engineering LLC
101 North Austin Street, Suite 1
Denton, TX 76201
Email: stu.mcbride@yahoo.com

Jana S. Warren, Owner
Vital Environmental Consulting
7656 CR 452 West
Laneville, TX 75667
Email: jana@vitalenv.com

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
(U.S. EPA)
REGION 6, 1445 ROSS AVENUE
DALLAS, TX 75202

June 19, 2013

The Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313 (Toxic Release Inventory Reporting - TRI)

******** Inspection Checklist ********

To expedite the completion of the upcoming compliance inspection it is requested that the facility have the following information available on the day of the scheduled inspection. **If it is determined that any of the following information can not be made available at the time of the scheduled inspection, the facility should immediately notify the EPA Inspector by phone, followed by a written explanation as to what material can not be made available and the reason(s) why.**

Region 6's TRI enforcement program utilizes the full extent of the "statute of limitation," which allows penalties to be assessed for violations discovered during compliance inspections covering the previous five (5) years. This means that after July 1, 2013, Region 6 shall investigate from the 2012 calendar year, back to the 2008 calendar year, reports were due on or before July 1, 2009. As of this date, 2008, 2009, 2010, 2011and 2012 are covered.

Therefore, unless previously notified, it shall be expected that all requested information referenced in this document shall be made available for the Inspector's review at the time of the scheduled inspection.

The following information shall be provided to the Inspector for the 2008 through 2012 calendar years. By supplying all the information requested, and following the recommended procedures, at the time of the inspection, it is hoped the inspection will be concluded in an expeditious manner, and the facility can return to its daily routine as quickly as possible.

1. There will be several different types of information for which the Inspector may request a copy. Some of this information will require a "certification statement," much like the signature on a Form R or Form A. The "certification statement" will appear at the end of the information. For example, the facility's calculation of annual usage of EPCRA Section 313 toxic chemicals will require a "certification statement." On the other hand, a vendor's MSDS, for example, will not require such a "certification statement." The "certification statement" should contain verbiage similar to:

" I attest that the above information is true and correct to the best of my knowledge, "

(Date) (Certifying Official & Title)

The most senior level and/or responsible person present at the facility during the inspection, and/or participating in the inspection shall sign and date the statement for each applicable group of information.

EPA fully understands that certain types of facility information, for which a copy has been requested, may be deemed proprietary information. To maintain this confidentiality, EPA will place these items in a separate envelope in the inspection file and label the envelope "Confidential Business Information (CBI) - Do Not Release Under FOIA" The facility is asked to mark all items they wish to be considered as CBI before supplying a copy to the Inspector. Items selected to be covered under CBI must meet the basic requirements for CBI information. Such items as Form R's or A's are in fact public information.

2. Reporting obligations can sometimes be complicated if the facility has recently been purchased by the current owner. In other words, if the current owner/operator has not been the sole owner/operator at the facility for all years covered by this inspection, i.e., from calendar year 2008 to 2012, then he may not be responsible for reporting obligations for some years . If you have owned and/or operated the facility prior to July 1, 2009, to present then this part of the inspection checklist does not pertain to you, skip to item #3. However, if this situation applies to you then read the below information carefully.

If this facility was purchased by the current owner on or after July 1, 2009, the date the purchase transaction was concluded, or became effective, shall be made available in a written statement to the Inspector, or a photocopy of the appropriate page(s) from the purchase agreement shall be made available. In addition, and if applicable, a copy of that portion of the purchase agreement which discusses environmental liability of the previous/current owner/operator shall be made available to the inspector.

According to EPCRA Section 313 Guidance and Policy - the owner/operator of a covered facility, at the time the Form R's or A's are due, is primarily responsible for reporting. For example, if a facility's purchase was finalized on or before July 1, 2013, then the new owner/operator would be primarily responsible for only the 2012 calendar year reports, unless the previous owner/operator filed the reports. If purchased between 2008 and 2012, a determination will be made, based on the purchase date, how many years the new owner/operator is responsible for.

If it can be substantiated that environmental liability has not been addressed in the purchase agreement, the presumption will then be made that the current owner/operator is only responsible for reporting obligations from the date of purchase through the most recent reporting year. Here, for example, the 2012 reporting/calendar year, reports due on or before July 1, 2013. The current owner/operator shall provide, to the best of their knowledge, contact information for the previous owner(s)/operator(s). If the current owner/operator has assumed previous liability then the current owner/operator shall be held accountable for violations back to calendar year 2008.

3. If a map of the "facility" is available, a **copy** should be provided to the Inspector. Regardless if a map is, or is not available, indicate to the inspector if there are other "establishments," either contiguous or adjacent to the "facility" being inspected. Also indicate if the "facility" being inspected reports as a "multi-establishment" facility or not. If there are other "establishments" contiguous or adjacent to the "facility" being inspected indicate if these "establishments" have or have not reported to TRI, either as "part of a facility," with the TRIFID (Toxic Release Inventory Facility Identification Number) of the "facility" being inspected, or reported as their own entity under a separate TRIFID. If you do not understand the meaning of "establishment," "multi-establishment," contiguous, or adjacent, please contact the Inspector, or any EPCRA 313 Enforcement Officer in Region 6.

4. If a process flow diagram for the facility is available a **copy** should be provided to the Inspector.

5. Copies of all submitted Form R's / A's for calendar years 2008, or the appropriate beginning year of responsibility, through 2012 shall be available to the Inspector to review. Do not make copies prior to the inspection. In addition, proof of submission to EPA and the appropriate State Agency, may be requested in the event a Form is provided for which no copy exists in the TRI data base. The Inspector may request a copy of an entire Report, or a copy of just a portion of a Report, for inclusion in the Inspection Report.

6. Copies of all Material Safety Data Sheets (MSDS's) for products utilized at the facility shall be available to the Inspector for review at the time of the inspection. Electronic MSDS's are acceptable. Do not make copies prior to the inspection. The Inspector may request a copy of all, or just a portion of any MSDS for inclusion in the Inspection Report. If the material for which an MSDS has been provided, has changed significantly in composition from one year to the next, insure you have a copy of the appropriate MSDS for the particular reporting year in question.

7. To determine if all EPCRA Section 313 chemicals, whose threshold has been exceeded, have been reported to EPA and to the appropriate State Agency, the facility is requested to construct a data table of toxic chemical usage. If such a table does not already exist, by calendar year, for each product used, which contains one or more EPCRA Section 313

toxic chemicals, then a yearly data table needs to be prepared. A **copy** of these data tables will be given to the EPCRA 313 Inspector for inclusion in the inspection file.

The facility can utilize a table similar to the one given below, or there are blank tables provided in the Form R Instruction's booklet for PBT's and non-PBT's, which can be utilized.

(See next page of example data table)

YEAR: 2011 (Identify the year for which the table applies)

PRODUCT NAME	313 TOXIC CHEMICAL NAME	WEIGHT %	"MANF, PROC, OWUSED" (M, P, OWU)	PRODUCT USED (LBS)	313 TOXIC CHEMICAL USED (LBS)

I attest that the above information is true and correct to the best of my knowledge.

_____

Company official's name, Date
Company official's title,
Company name,
Company location

The table should contain the product name, the name of the toxic 313 chemical, or chemicals it contains, the weight percentage of the EPCRA Section 313 chemical in the product, whether the EPCRA Section 313 chemical is "manufactured, processed, or otherwise used" - as those terms are defined 40 C.F.R. § 372.3, the number of pounds used of the product in the year in question, and then by multiplying the amount of the product used by the weight percentage, the quantity of the EPCRA Section 313 chemical used at the facility for the year in question can be obtained. If you do not understand how to calculate usage of EPCRA Section 313 chemicals contact the EPCRA 313 Enforcement & Program Coordinator at U.S. EPA Region 6 **(Morton E. Wakeland, Jr., 214.665.8116)**. Remember, construct a table for each calendar year for which the facility is responsible for reporting.

At the end of each yearly table, supply a certification statement as mentioned previously.

8. You shall provide to the Inspector **copies** of the mathematical procedures used to calculate the usage of the EPCRA Section 313 chemicals that are listed in the above data tables.

9. You shall provide to the Inspector **copies** of the mathematical procedures used to calculate the various release values, other waste management values, source reduction values and recycle values that appear on your facility's Form R's.

10. If Form A's were submitted in lieu of Form R's for any EPCRA Section 313 chemical used at your facility, you shall provide the Inspector **copies** of the substantiation that the facility met the conditions for submitting a Form A for that year and that chemical.

11. If the facility submitted to its State an "emission inventory" the latest inventory should be available to the Inspector for review.

12. A copy of the most recent EPCRA Tier II Report shall be available to the Inspector for review at the time of the inspection. If you are unfamiliar with requirements for filing Tier II Reports pursuant to Section 312 of EPCRA, contact Mr. Steve Mason with U.S. EPA Region 6 Superfund Division at **214.665.2292**.

13. If your facility manufactures a product(s) which contain EPCRA Section 313 toxic chemicals you may be required to provide Supplier Notification for that product. Instructions for Supplier Notification Requirements are shown in Appendix D-1 of the booklet Toxic Chemical Release Inventory Reporting Forms and Instructions, Revised 2010 Version. You shall have available for review the Supplier Notifications. Copies may be requested for inclusion in the Inspection Report.

14. For each calendar year covering this inspection, you shall provide a copy of the following information to the EPCRA 313 Inspector with a "certification statement."

    1. Number of full time employees by each year covered by the inspection, designated as <50 or >50.
    If the number of full time employees is less than 10 for a year in question, then determine the total number of hours worked in that year by all full time, part time, contract, and any other employees, including off site employees, who contributed toward the economic growth of the facility.

    2. Gross annual sales designated as less than or greater than $10 million for each year covered by the inspection.

15. You shall provide the Inspector with the primary Standard Industrial Classification (SIC) Code under which your facility reports, along with the corresponding NAICS (North American Industry Classification System) Code. Include a detailed explanation of what it is your facility performs. If you are a multi-establishment facility list all SIC/NAICS Codes the facility operates under beginning with the Primary SIC/NAICS Code first and working toward less economic significance.

    If the facility has never submitted a Form R or Form A then provide the Inspector with other identifying numbers for the facility, e.g. RCRA ID #, and Dunn & Bradstreet #.

16. If your facility is required to monitor, or otherwise measure releases of any of the toxic EPCRA 313 chemicals utilized at your facility, please identify each 313 chemical

monitored/measured, and the method used to obtain the information. Include under which federal/state environmental statute/regulation the monitoring/measuring is required. If your facility is not required to conduct any monitoring please include a statement and attest to such.

17. If your facility does in fact monitor/measure 313 chemicals please provide the information gathered from this process, by year, for each 313 chemical monitored/measured.

18. For each 313 chemical reported by your facility, indicate how the releases were calculated: engineering calculations using emission factors, monitoring/measurement data, or other. If other, explain "other."

19. Please provide the State under who's laws your facility was incorporated.

Useful EPA Websites:

EPA Homepage: http://www.epa.gov/

Toxic Release Inventory Homepage: http://www.epa.gov/tri/

Envirofacts Data Warehouse: http://www.epa.gov/enviro/

Conversion tool, SIC to NAICS: http://www.census.gov/cgi-bin/epcd/srchnaics02defs

Federal Register Notices & Code of Federal Regulations: http://www.gpoaccess.gov/fr/index.html

TRI Explorer - Statistical/Trend Analysis: http://www.epa.gov/triexplorer/

OSHA Homepage: http://www.osha.gov/

Office of Enforcement and Compliance Assurance Homepage: http://www.epa.gov/compliance/about/offices/oeca.html

Stranne, Lawrence

From: Stranne, Lawrence
Sent: Wednesday, June 19, 2013 10:37 AM
To: okpl@pine-net.com; jana@vitalenv.com
Subject: FW: Attached Image of inspection notice
Attachments: 2392_001.pdf

Lawrence V. Stranne, P.E.
Inspector
US EPA (Environmental Protection Agency)
1445 Ross Avenue
Dallas, TX 75202
214-665-7337
E-mail: stranne.lawrence@epa.gov
Fax: 214-665-6655

From: r6_fax@epa.gov [mailto:r6_fax@epa.gov]
Sent: Wednesday, June 19, 2013 10:09 AM
To: Stranne, Lawrence
Subject: Attached Image

Stranne, Lawrence

From: Stranne, Lawrence
Sent: Wednesday, June 19, 2013 10:45 AM
To: stu.mcbride@yahoo.com
Subject: FW: Attached Image of inspection notice
Attachments: 2393_001.pdf

Lawrence V. Stranne, P.E.
Inspector
US EPA (Environmental Protection Agency)
1445 Ross Avenue
Dallas, TX 75202
214-665-7337
E-mail: stranne.lawrence@epa.gov
Fax: 214-665-6655

From: r6_fax@epa.gov [mailto:r6_fax@epa.gov]
Sent: Wednesday, June 19, 2013 10:44 AM
To: Stranne, Lawrence
Subject: Attached Image

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

July 12, 2013

FILE COPY

KMG-Bermuth, Inc.
9555 West Sam Houston Parkway South
Suite 600
Houston, TX 77099

Gentlemen:

I would appreciate receiving the weight percentages of the following chemical and chemical category contained in the pentachlorophenol (CAS 87-86-5) in your product, Dura-Treat 40 Wood Preserver:

Hexachlorobenzene (CAS 118-74-1)
Dioxin and dioxin like compounds (EPA N150) see attachment

If you have any questions please contact me at 214-665-7337.

Thank you for your assistance.

Sincerely,

Lawrence V. Stranne, P.E.
Inspector, Emergency Planning and
Community Right to Know Act
Phone: 214-665-7337
Fax: 214-665-6655
E-mail: stranne.lawrence@epa.gov

Attachment

Attachment 4

KMG REQUEST

Recycled/Recyclable • *Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)*

15646-96-5	2,4,4-Trimethylhexamethylene diisocyanate

N150 Dioxin and Dioxin-Like Compounds (Manufacturing; and the processing or otherwise use of dioxin and dioxin-like compounds if the dioxin and dioxin-like compounds are present as contaminants in a chemical and if they were created during the manufacturing of that chemical.) (*) This category includes only those chemicals listed below. [Note: When completing the Form R Schedule 1, enter the data for each member of the category in the order they are listed here (i.e., 1-17).]

1	1746-01-6	2,3,7,8-Tetrachlorodibenzo-*p*-dioxin
2	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin
3	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin
4	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin
5	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin
6	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin
7	3268-87-9	1,2,3,4,6,7,8,9-Octachlorodibenzo-*p*-dioxin
8	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran
9	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran
10	57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran
11	70648-26-9	1,2,3,4,7,8-Hexachlorod-benzofuran
12	57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran
13	72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran
14	60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran
15	67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran
16	55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran
17	39001-02-0	1,2,3,4,6,7,8,9-Octachlorodibenzofuran

N171 Ethylenebisdithiocarbamic acid, salts and esters EBDCs) (1.0)

Includes any unique chemical substance that contains an EBDC or an EBDC salt as part of that chemical's infrastructure.

N230 Certain Glycol Ethers (1.0)

$R\text{-}(OCH_2CH_2)_n\text{-}OR'$
where n = 1, 2, or 3
R = alkyl C7 or less; or
R = phenyl or alkyl substituted phenyl;
R' = H, or alkyl C7 or less; or
OR= consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate.

N420 Lead Compounds (*)

Includes any unique chemical substance that contains lead as part of that chemical's infrastructure.

N450 Manganese Compounds (1.0)

Includes any unique chemical substance that contains manganese as part of that chemical's infrastructure.

N458 Mercury Compounds (*)

Includes any unique chemical substance that contains mercury as part of that chemical's infrastructure.

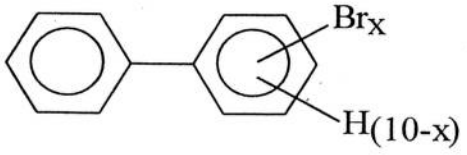
N495 Nickel Compounds (0.1)

Includes any unique chemical substance that contains nickel as part of that chemical's infrastructure.

N503 Nicotine and salts (1.0)

Includes any unique chemical substance that contains nicotine or a nicotine salt as part of that chemical's infrastructure.

N511 Nitrate compounds (water dissociable; reportable only when in aqueous solution) (1.0)



Where x = 1 to 10

N575 Polybrominated Biphenyls (PBBs) (0.1)

N583 Polychlorinated alkanes (C_{10} to C_{13}) (1.0, except for those members of the category that have an average chain length of 12 carbons and contain an average chlorine content of 60% by weight which are subject to the 0.1% *de minimis*)

$C_xH_{2x+2-y}Cl_y$
where x = 10 to 13;
y = 3 to 12; and .
the average chlorine content ranges from 40 C 70% with the limiting molecular formulas $C_{10}H_{19}Cl_3$ and $C_{13}H_{16}Cl_{12}$

EPA 260-R-10-001
December 2011

Toxic Chemical Release Inventory Reporting Forms and Instructions

Revised 2011 Version

Section 313 of the Emergency Planning and Community Right-to-Know Act

(Title III of the Superfund Amendments and Reauthorization Act of 1986)

Stranne, Lawrence

From: Jana S. Warren [jana@vitalenv.com]
Sent: Friday, September 20, 2013 3:00 PM
To: Stranne, Lawrence
Subject: RE: Attached Image of 2011 and 2012 usage

Based on the information I received, yes. I actually asked OPLC the same question because it seemed odd to have the exact same amount.

Jana S. Warren
M.S. Environmental Science

Vital Environmental Consulting
7656 County Road 452 West
Laneville, Texas 75667
(903) 746-1349
Fax (903) 854-2312
www.vitalenv.com

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From: Stranne, Lawrence [mailto:stranne.lawrence@epa.gov]
Sent: Friday, September 20, 2013 2:38 PM
To: jana@vitalenv.com
Subject: FW: Attached Image of 2011 and 2012 usage

Jana S. Warren, Owner
Vital Environmental Consulting
Laneville, Texas

Jana,

In reviewing the 2011 and 2012 spread sheets for Dura-Treat 40 I noticed that each contained the same information. Is this correct?

Copies of the spread sheets are attached.

Have a good weekend.

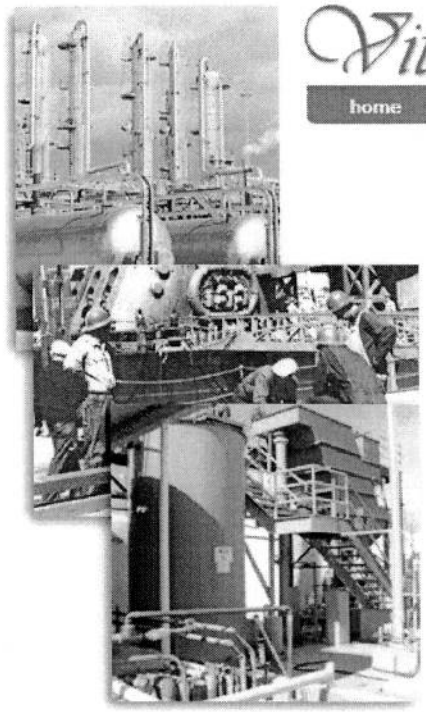
Larry

Lawrence V. Stranne, P.E.
Inspector
US EPA (Environmental Protection Agency)
1445 Ross Avenue
Dallas, TX 75202
214-665-7337
E-mail: stranne.lawrence@epa.gov
Fax: 214-665-6655

ATTACHMENT 5

From: r6_fax@epa.gov [mailto:r6_fax@epa.gov]
Sent: Friday, September 20, 2013 2:29 PM
To: Stranne, Lawrence
Subject: Attached Image

www.vitalenv.com



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Welcome

Vital Environmental Consulting partners with clients to assess and manage the potential environmental, and energy issues associated with their activities and products. Decision makers rely on me to reduce or eliminate environmental impacts throughout their business life cycles. Whether responding to existing challenges, implementing measures to prevent future liabilities, or seeking sustainability strategies, clients around East Texas benefit from my blend of universally high technical and scientific skills and knowledge of local requirements and practices.
Vital Environmental Consulting strives to achieve a realistic balance between environmental regulatory compliance, client goals, and environmental stewardship in the most cost efficient manner possible.

My vision is simple. I want to be your environmental consultant of choice. Your choice for quality. Your choice for service. Your choice for cost-effectiveness. I do that by following one simple rule:
Provide high quality scientifically defensible products at very competitive rates.

If you are interested in acquiring my services, or need any additional information not included in this website, please click the contact us tab above, and I will be happy to get that information to you.

Jana Warren - Vital Environmental Consulting

Site Search

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Vital Environmental Consulting :: 7656 CR 452 W. :: Laneville, Texas 75667 :: Phone - 903-746-1349 :: Fax - 903-854-2312

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ATTACHMENT 6

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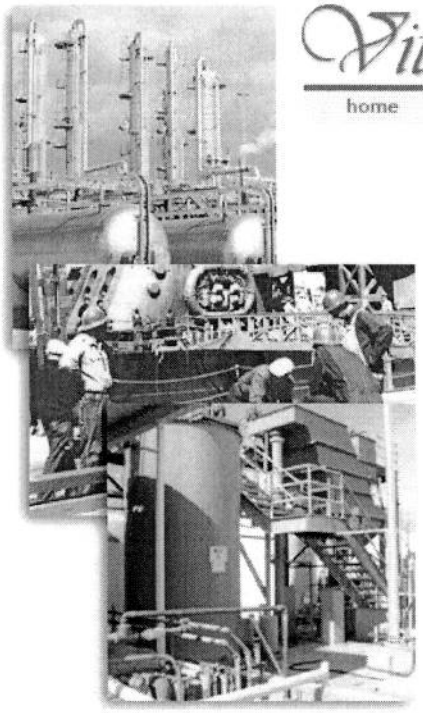

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Projects

On-site environmental assistance in air compliance for Tyler oil refinery, including Title V reporting

Air Permit Applications prepared for: Oil refinery, coatings manufacturer, sign manufacturer, compressed air cylinder manufacturer, automotive parts manufacturer.

Prepared Storm Water Permits and Plans for: sign manufacturer, compressed air cylinder manufacturer, automotive parts manufacturer, metal foundry, plastics manufacturer, machining facility.

Prepared SPCC Plans for: compressed air cylinder manufacturer, oil field tank locations, machining facility, used oil blender/resaler, used oil filter recycling plant.

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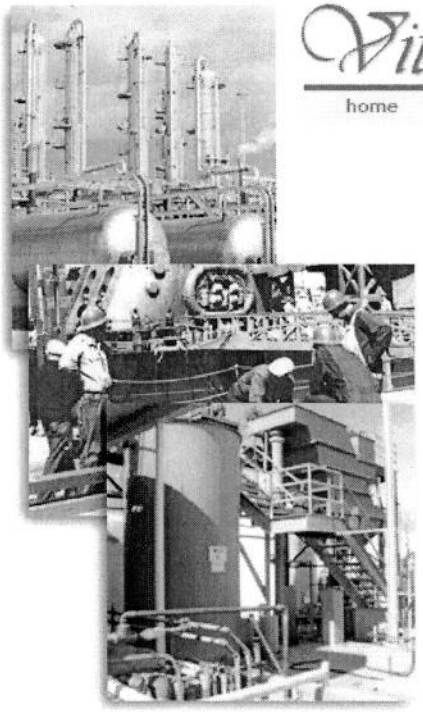

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Experience

New Source Review Air Permitting, including new applications, permit amendments, and Permit by Rule applications.
State and Federal Air Emission regulatory research, interpretation, and reporting.
Annual Air Emissions Inventories
Monthly Air Emissions Record Keeping, including preparation of system for record keeping.
Annual Tier Two Reporting
Annual Waste Summary Reporting
Industrial and Hazardous Waste Stream classification and registration
Annual Toxic Release Inventory Reporting
Storm Water Permits and Plans
Storm Water quarterly and annual inspections as required by the permit
Spill Prevention Control and Countermeasure (SPCC) Plans
Conduct Storm Water Training for industry personnel
Conduct SPCC Training for industry and oil field personnel
Environmental Regulatory Compliance Audits
Phase I Environmental Site Assessments

Education

M.S. in Environmental Science from Stephen F. Austin State University
Worked for consulting firm for 6 1/2 years before starting own business

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corporationwiki

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Home | People | Companies | States | Login

Texas > Denton > Ridgeline Engineering LLC

Ridgeline Engineering LLC

0 Recommend 77k Send Follow @corporationwiki

Updated 3/16/2013 - This profile of Ridgeline Engineering LLC was created using data from Dun & Bradstreet and Texas Secretary of State

Company Reports from Dun & Bradstreet

Arrest Records: 2 Secrets

InstantCheckmate.com

1) Enter Name and State. 2) Access Full Background Checks Instantly.

AdChoices

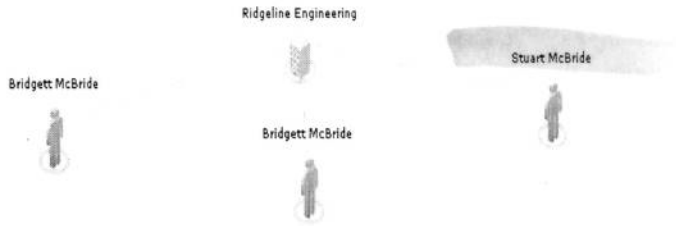
Officers

Bridgett McBride
President
Director

Bridgett McBride
Principal

Stuart McBride
Vice President
Director

Connection Visualizer - Click an icon below to explore!



Layout: View Large Format | Circular | Tree | ISOM | EfficientSugiyama | CompoundFDP

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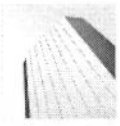
Ridgeline Engineering LLC



Ridgeline Engineering LLC has a location in **Denton**, **TX**. Active officers include **Bridgett McBride**, **Bridgett McBride** and **Stuart McBride**. Ridgeline Engineering LLC filed as a *Domestic Limited Liability Company (LLC)* on Monday, July 28, 2008 in the state of **Texas** and is currently active. The company's line of business includes *Engineering Services*.

101 N Austin St Ste 1
Denton, TX 76201

View nearby businesses

Category: Engineering Services
Filings: Domestic Limited Liability Company (LLC) (TX - Active)
Sources: Dun & Bradstreet last refreshed 3/16/2013
Texas Secretary of State last refreshed 3/16/2013

Company Reports from Dun & Bradstreet

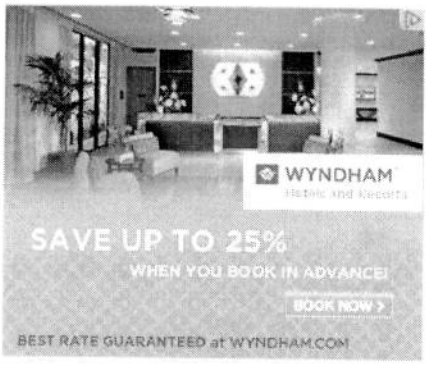
Officers at Ridgeline Engineering LLC

Click on to the left of the name to see the Connection Visualizer.

Bridgett McBride	President and Director at Ridgeline Engineering LLC	Crossroads, TX

ATTACHMENT 7

Bridgett McBride	Principal at Ridgeline Engineering LLC	Denton, TX
Stuart McBride	Vice President and Director at Ridgeline Engineering LLC	Crossroads, TX



People who visited this profile also visited...

- Jrb Engineering, LLC
  Located in Dallas, TX
- Bridgett McBride
  Located in Crossroads, TX
- Stuart McBride
  Located in Crossroads, TX
- Eric Garcia
  Located in Dallas, TX

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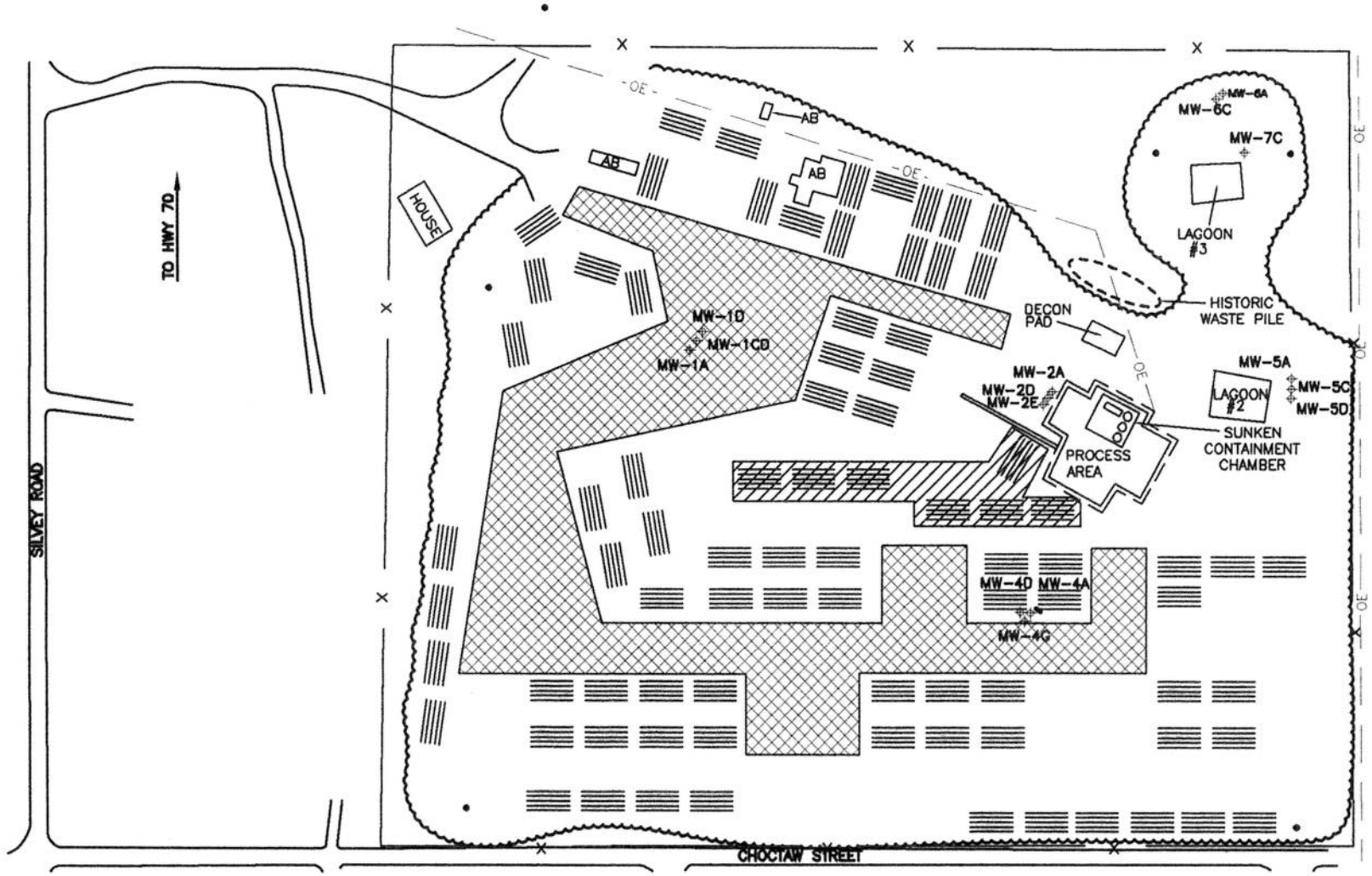
Attachment 8



LEGEND

AB	ABANDONED BUILDING
-OE-	OVERHEAD POWER LINES
	HEAVY VEGETATION
	LOG PILE
X	FENCE
MW-4G	MONITOR WELL

NOT TO SCALE

EFFECTIVE ENVIRONMENTAL 2 Inc.

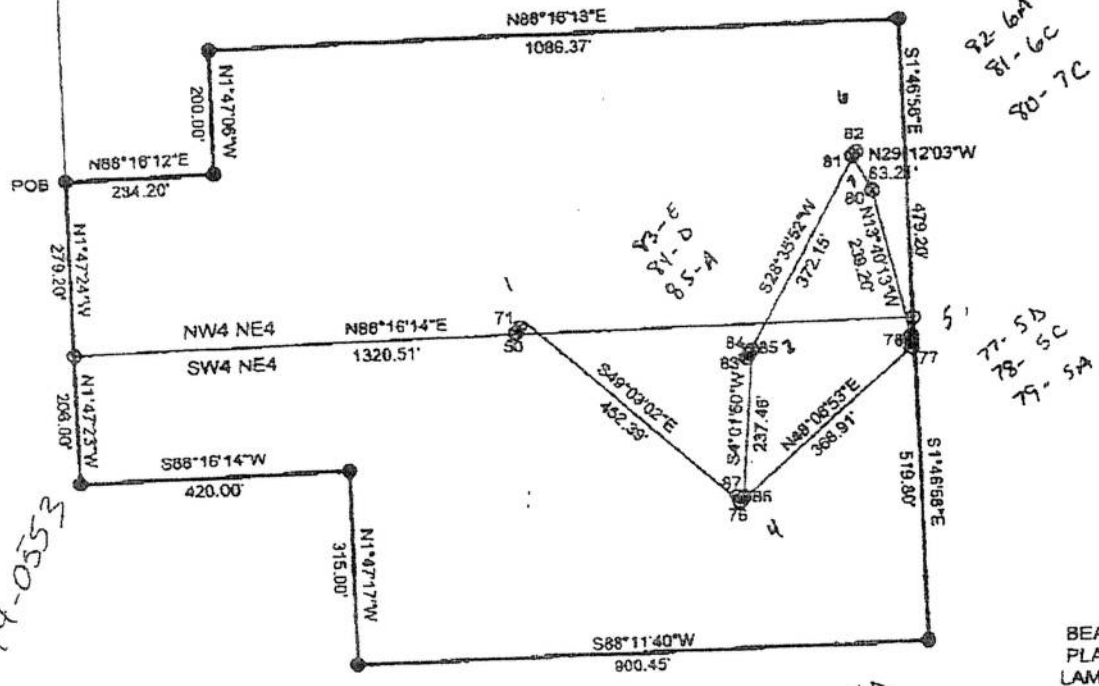
SITE PLAN

OKLAHOMA
POLE & LUMBER COMPANY, INC.
HWY 70 E. SILVEY ST.
BROKEN BOW, OKLAHOMA
EPA ID# OKD00733524

NW COR
NE1/4
SEC. 19

S1°47'24"E
1042.20'

LEGAL DESCRIPTION
All that part of the E1/2 NE1/4 of Section 19, Township 6 South, Range 25 East, Indian Base & Meridian, McCurtain County, Oklahoma, described as follows:
Beginning S01°47'24"E, 1042.20 feet, of the Northwest corner of NE1/4 of said Section 19; thence N88°16'12"E, 234.20 feet; thence N01°47'06"W, 200.00 feet; thence N88°16'13"E, 1086.37 feet, to the East line of W1/2 NE1/4; thence S01°46'56"E, along East line W1/2 NE1/4, 999.00 feet; S88°11'40"W, 900.45 feet; thence N01°47'17"W, 315.00 feet; thence S88°16'14"W, 420.00 feet, to the West line NE1/4; thence N01°47'24"W, 485.20 feet, along West line NE1/4, to the Point of Beginning, containing 26.21 acres, more or less, subject to all recorded easements, restrictions or reservations.



BEARINGS ARE STATE PLANE COORDINANCE LAMBERT PROJECTION SOUTH ZONE

LEGEND	
⊕	Exst. Monument
●	Set 1/2" Rebar/Cap
⊗	Monitoring Well
○	Nothing Set

0 300' 600'

CERTIFICATE OF SURVEY
I, Donald L. Pollard, a Registered Land Surveyor, hereby certify that a careful survey was made under my supervision of the above described parcel. This is a true and correct plat thereof and that this survey meets or exceeds the "Oklahoma Minimum Standards For The Practice of Land Surveying" adopted by the Oklahoma State Board of Registration of Licensure for Professional Engineers and Land Surveyors.

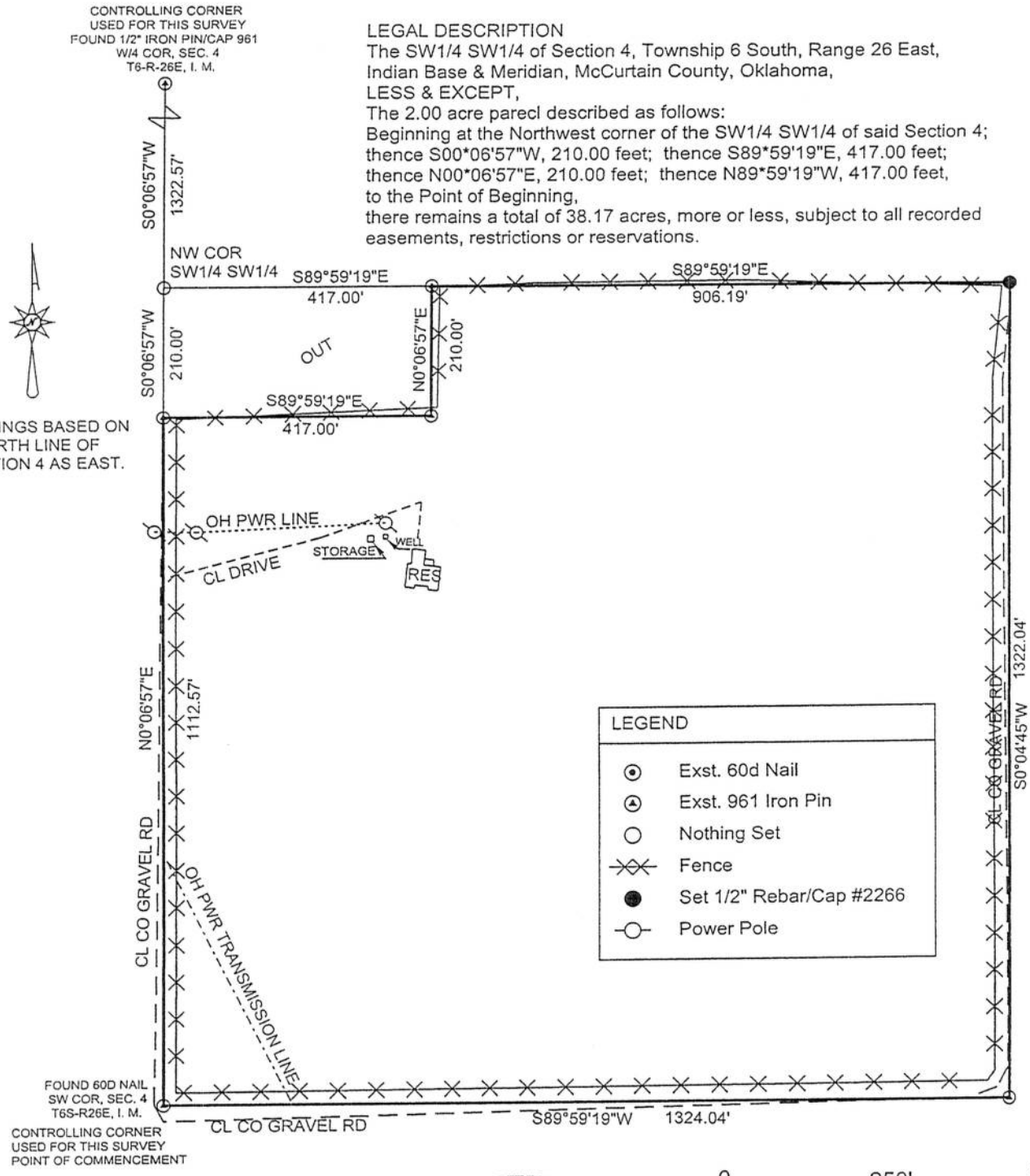
Donald L. Pollard 9-29-06
Donald L. Pollard RLS #961

REGISTERED LAND SURVEYOR
Donald L. Pollard
L.S. 961
OKLAHOMA

POLLARD SURVEYING
CA #2266 EXP. 6-30-07
HC 60 Box 400, Haworth, OK 74740
580.245.1574
Donald L. Pollard
Licensed Land Surveyor #961

FILE NAME	SURVEY DATE	
8S25E19.TRV	8-29-2006	
SCALE	DRAWING DATE	DRAWN BY
300 Ft/In	10-16-2006	SKS
JOB/CLIENT	REVISION	SHEET
K-J Environment	1/1	BK 58 PG 37

Traverse PC



LEGAL DESCRIPTION

The SW1/4 SW1/4 of Section 4, Township 6 South, Range 26 East, Indian Base & Meridian, McCurtain County, Oklahoma,
LESS & EXCEPT,
The 2.00 acre parecl described as follows:
Beginning at the Northwest corner of the SW1/4 SW1/4 of said Section 4; thence S00*06'57"W, 210.00 feet; thence S89*59'19"E, 417.00 feet; thence N00*06'57"E, 210.00 feet; thence N89*59'19"W, 417.00 feet, to the Point of Beginning,
there remains a total of 38.17 acres, more or less, subject to all recorded easements, restrictions or reservations.

CERTIFICATE OF SURVEY

I, Donald L. Pollard, a Registered Land Surveyor, hereby certify that a careful survey was made under my supervision of the above described parcel. This is a true and correct plat thereof and that this survey meets or exceeds the "Oklahoma Minimum Standards For The Practice of Land Surveying" adopted by the Oklahoma State Board of Registration of Licensure for Professional Engineers and Land Surveyors.

Donald L Pollard 4-14-08

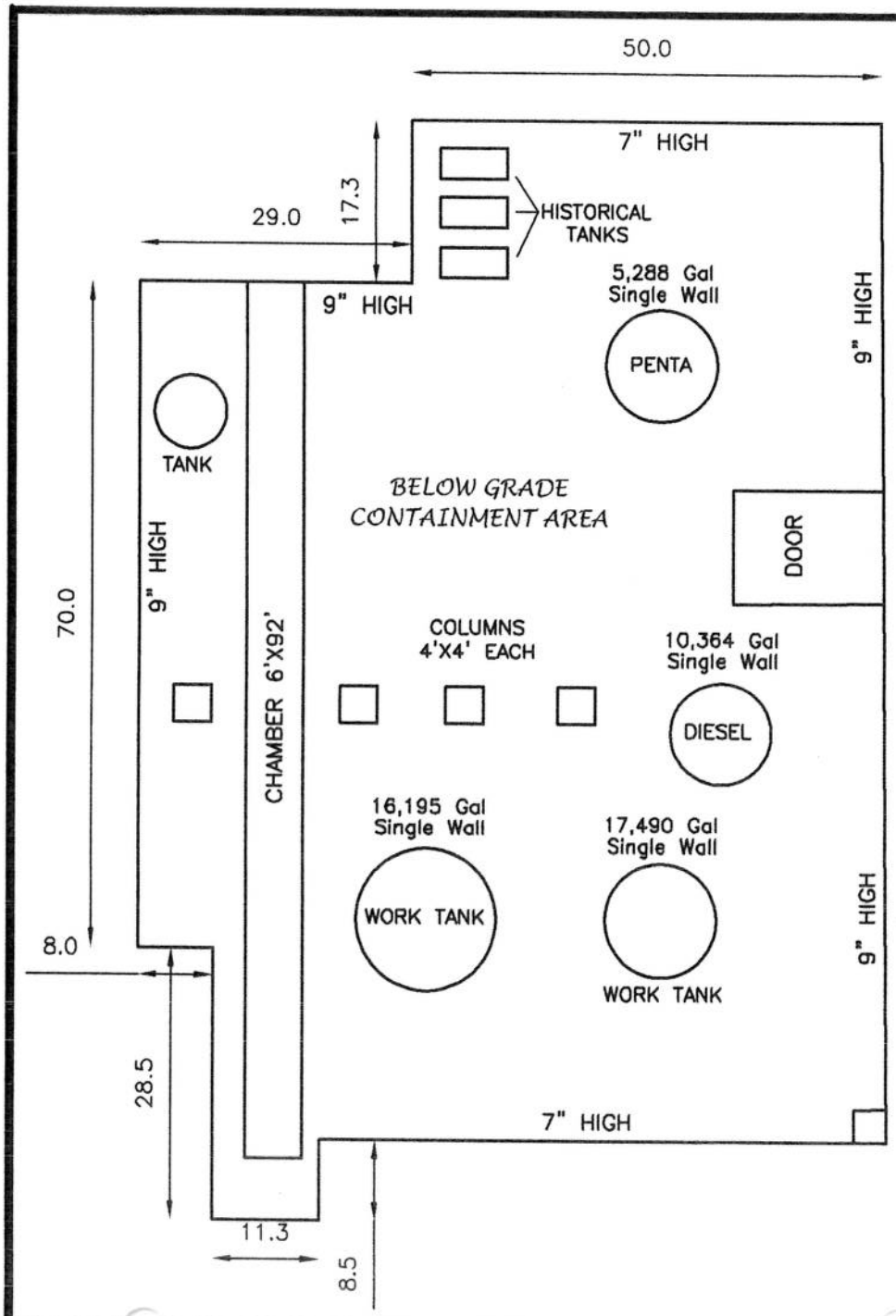
Donald L. Pollard RLS #961

REGISTERED LAND SURVEYOR
Donald L. Pollard
L.S. 961
OKLAHOMA

POLLARD SURVEYING, LLC
CA #2266 EXP. 6-30-09
HC 60 Box 400, Haworth, OK 74740
580.245.1574
Donald L. Pollard
Licensed Land Surveyor #961

FILE NAME	SURVEY DATE / LAST SITE VISIT	
6S26E041.TRV	4-10-2008	
SCALE	DRAWING DATE	DRAWN BY
250 Ft/In	4-15-2008	SKS
JOB/CLIENT	REVISION	SHEET
Worley	1/1	BK PG DC

Traverse PC



AREA = 7953.5 SQ FT
MAX DEPTH = 7" (OR 0.58')
VOLUME = 4639.5 CU FT
VOLUME (MINUS DOOR PAD)
VOLUME = 4528 CU FT
VOLUME (MINUS COLUMNS)
VOLUME = 4491 CU FT
VOLUME (MINUS CHAMBER)
VOLUME = 4171 CU FT
1" FB(>10%) = 348 CU FT
MAX CONTAINMENT VOLUME =
4171 CU FT – 348 CU FT
=3823 CU FT (OR ~28,500 GAL)

THE ENTIRE CAPACITY OF
THE LARGEST SINGLE
CONATINER (WITH FREEBOARD)
MUST BE < (LESS THAN)
28,500 GALLONS

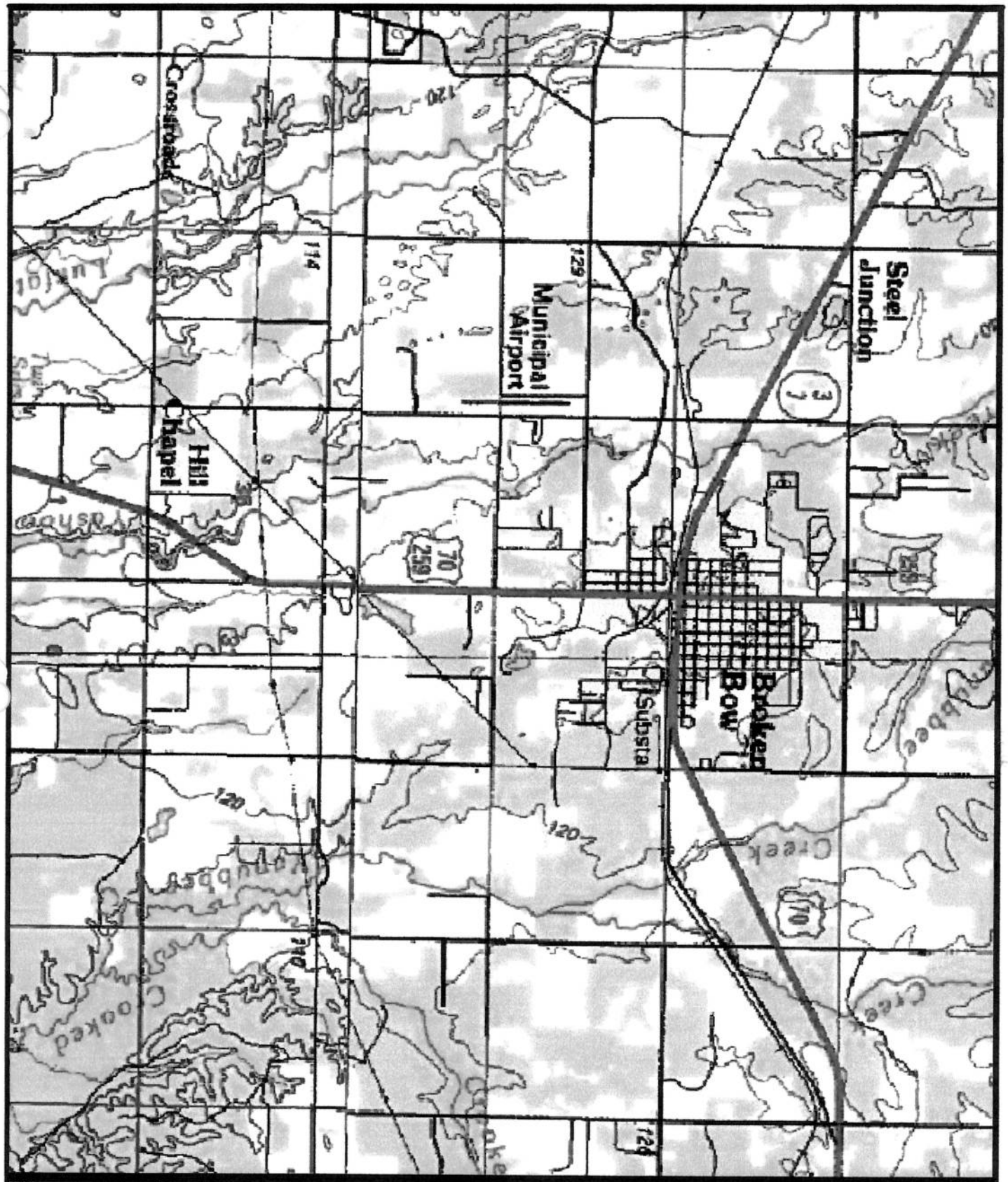
TANK SUMMARY:
16,195 GAL WORK TANK = 2165.0 CU FT
17,490 GAL WORK TANK = 2338.1 CU FT
10,364 GAL DIESEL TANK = 1385.5 CU FT
5,288 GAL PENTA TANK = 706.9 CU FT

THE ENTIRE CAPACITY OF THE SINGLE
LARGEST TANK IS LESS THAN THE
DESIGNED MAXIMUM OF
THE CONTAINMENT AREA

2 EFFECTIVE ENVIRONMENTAL Inc.

CONTAINMENT

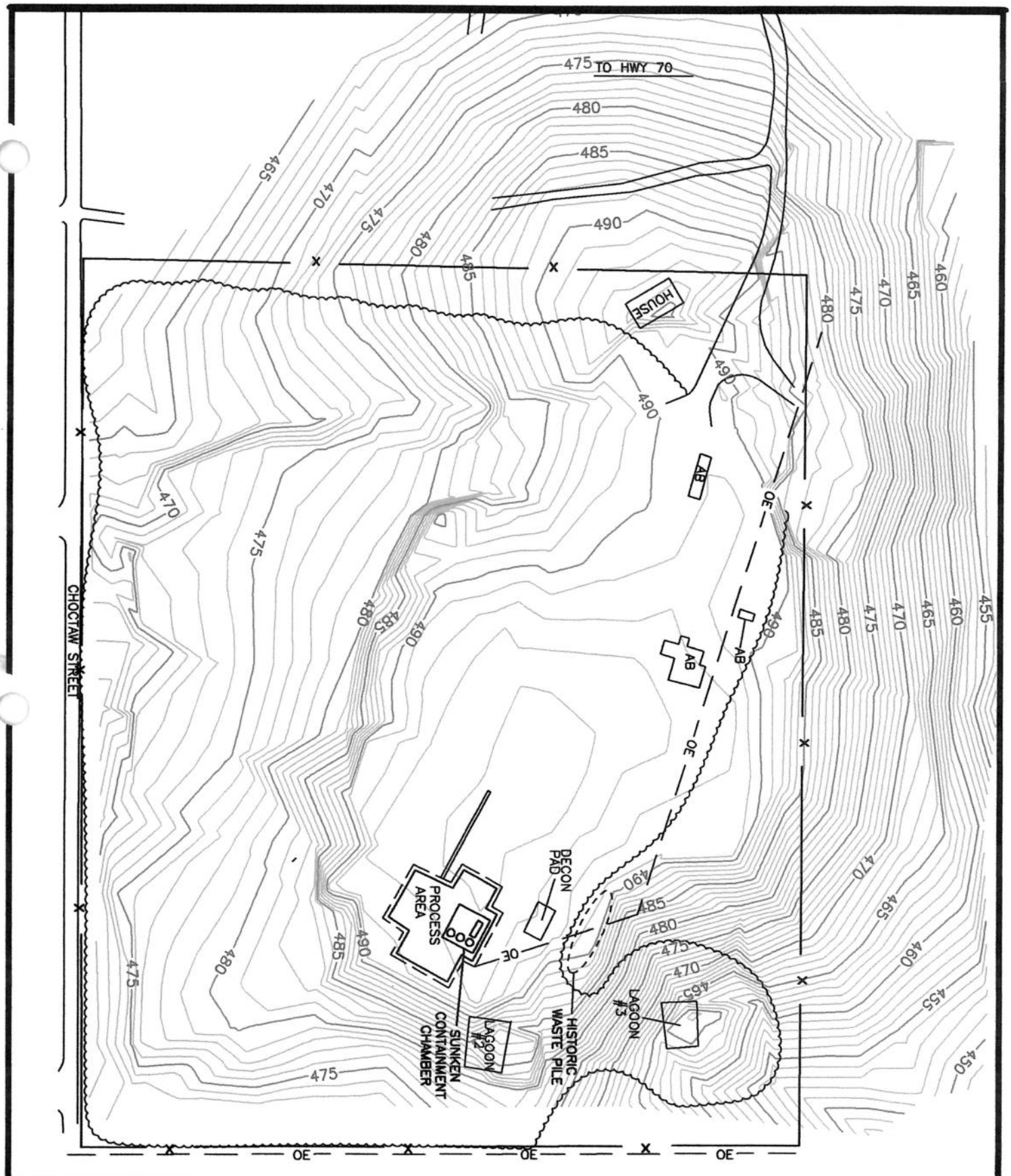
OKLAHOMA
POLE & LUMBER COMPANY, INC.
HWY 70 E. SILVEY ST.
BROKEN BOW, OKLAHOMA
EPA ID# OKD00733524



OKLAHOMA
POLE & LUMBER COMPANY, INC.
HWY 70 E. SILVEY ST.
BROKEN BOW, OKLAHOMA
EPA ID# OKD00733524

TOPOGRAPHY

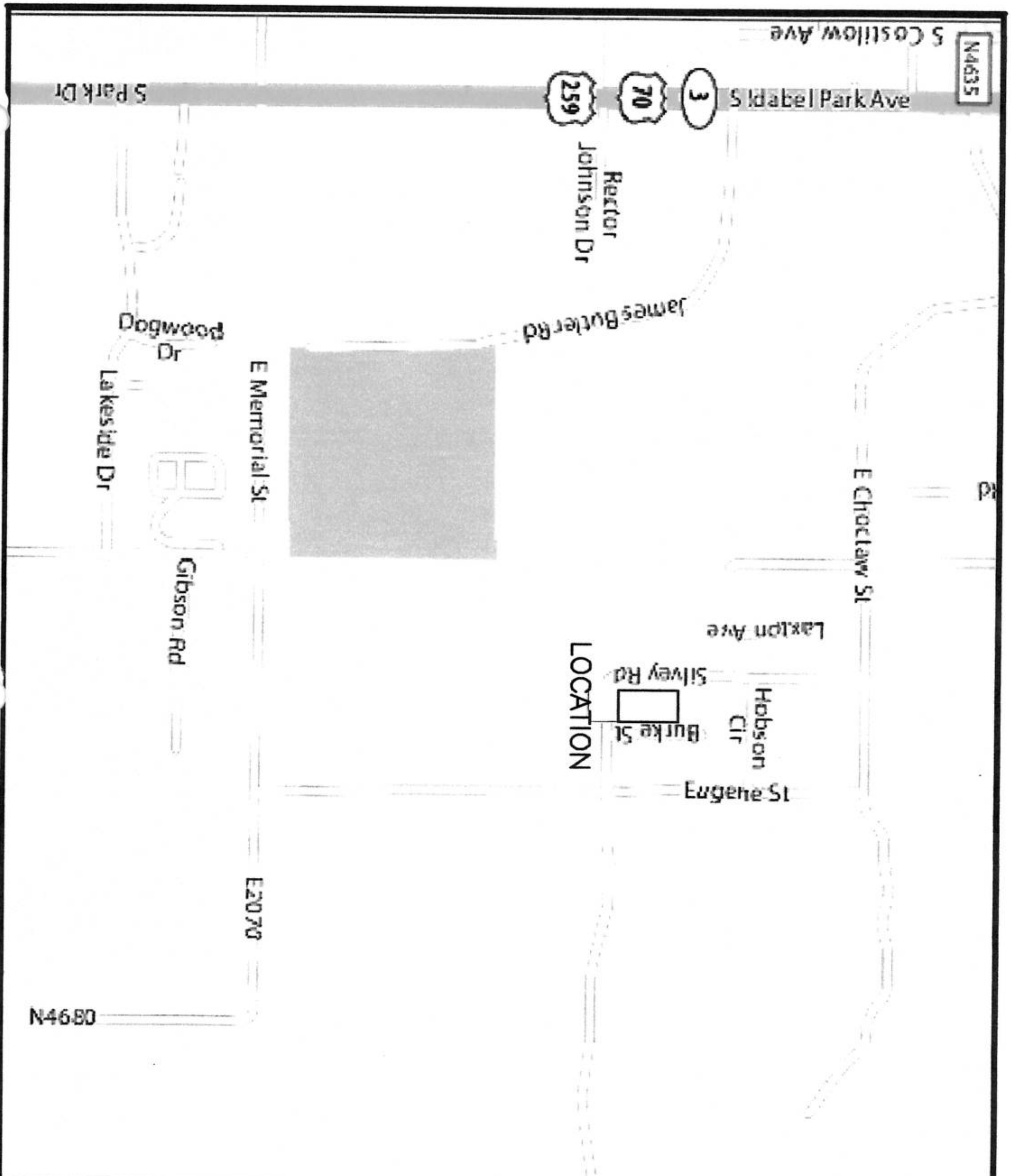
E2 FFECTIVE NVIRONMENTAL Inc.



OKLAHOMA
POLE & LUMBER COMPANY, INC.
HWY 70 E. SILVEY ST.
BROKEN BOW, OKLAHOMA
EPA ID# OKD00733524

TOPOGRAPHY
BY SURVEY

E2 FFECTIVE NVIRONMENTAL Inc.



OKLAHOMA POLE & LUMBER COMPANY, INC. HWY 70 E. SILVEY ST. BROKEN BOW, OKLAHOMA EPA ID# OKD00733524	LOCATION	E[2] FFECTIVE NVIRONMENTAL Inc.

OKLAHOMA POLE & LUMBER, INC
2973 RODEO RD
BROKEN BOW, OK 74728
580.236.0788

I ATTEST THAT THE FOLLOWING INFORMATION SUBMITTED IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE,

Rick Work — DATE

7-17-13 — CERTIFYING OFFICIAL & TITLE

INFORMATION REQUESTED DATED JUNE 19, 2013, PERTAINING TO EPCRA COMPLIANCE INSPECTION:

14.

1. 2008 - <50
   2009 - <50
   2010 - <50
   2011 - <50
   2012 - <50

2. 2008 - <10
   2009 - <10
   2010 - <10
   2011 - <10
   2012 - <10

ATTACHMENT 9

RESTRICTED USE PESTICIDE

DUE TO FETOTOXICITY AND ONCOGENICITY IN LABORATORY ANIMALS

For retail sale and use only by Certified Applicators or by persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

DURA-TREAT 40

WOOD PRESERVER

UN 1306

A CONCENTRATE PENTA SOLUTION ONLY FOR PRESSURE AND THERMAL TREATMENT OF WOOD

PROTECTS AGAINST TERMITES, WOOD ROTTING FUNGI AND LYCTUS POWDER POST BEETLES

gredients:

rophenol*	34.0%
orophenols and Related Ingredients	6.0%
gredients	60.0%
	100.0%

nt to 40.0% Technical Pentachlorophenol

KEEP OUT OF REACH OF CHILDREN

DANGER POISON

See back panel for additional precautionary statements, and complete Directions for Use

FIRST AID

d:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
wed:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not give anything by mouth to an unconscious person. Do not induce vomiting unless told to by a poison control center or doctor.
s:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
n or	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN

duct is a metabolic stimulant. Treatment is supportive. Forced Diuresis may be effective to reduce total body-burden. Treat ermia with physical measures. Do not administer aspirin, phenothiazines or atropine since they may enhance toxicity.

e product container or label with you when calling a poison control center or doctor, or going for treatment. You contact 1-800-322-8177 for emergency medical treatment.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

aled. May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes, on skin or on clothing. eathe vapors. Use with adequate ventilation. Wear protective eyewear, clothing, and chemical resistant gloves. Wear half tomeric respirator with the appropriate cartridges and/or filters. Wash thoroughly with soap and water after handling eating, drinking, chewing gum, using tobacco products, or using the toilet.

NICAL EMERGENCY. Spill, leak, fire, exposure, or accident call 1-800-322-8177.

PA has determined that pentachlorophenol can produce defects in the offspring of laboratory animals. Exposure to rophenol during pregnancy should be avoided.

PERSONAL PROTECTIVE EQUIMENT (PPE)

nel handling treated wood or handling treating equipment (including poles/hooks used to retrieve charge cables) that in contact with preservative must wear the following PPE:
or disposable coveralls or long-sleeved shirt and long pants,
resistant gloves, and
s industrial grade safety work boots with chemical resistant soles.

nel cleaning or maintaining the treatment cylinder gasket/equipment or working with concentrate or wood treatment ve must wear the following PPE:
or disposable coveralls or long-sleeved shirt and long pants,
resistant gloves,
s industrial grade safety work boots with chemical resistant soles, and
shield.

nt of equipment malfunction, or for door spacer placement, all personnel located within 15 feet of the cylinder opening linder ventilation must wear the following PPE:
or disposable coveralls over long-sleeved shirt and long pants,
resistant gloves,

- socks plus industrial grade safety work boots with chemical resistant soles, and
- a properly fitting half mask elastomeric respirator with appropriate cartridges and/or filters.

Entry to confined spaces is regulated by Federal and/or State Occupational Safety and Health Programs. Compliance is mandated by law. Individuals who enter pressure treatment cylinders or other related equipment that is contaminated with the wood treatment preservative (e.g., cylinders that are not free of the treatment preservative or preservative storage tanks) must wear protective clothing and/or equipment as required by Federal and/or State Occupational Safety and Health Compliance laws.

USER SAFETY REQUIREMENT

Personnel must leave aprons, protective coveralls, chemical resistant gloves, work footwear, and any other material contaminated with preservative at the treatment facility.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

Eating, drinking, and smoking are prohibited in the treatment cylinder load-out area, drip pad area, and engineering control room of the wood treatment facilities.
EXCEPTION: Where treating operator control rooms are isolated from the treating cylinders, drip pad, and work tanks, eating, drinking, and smoking (depending on local restrictions) are permitted.

USER SAFETY INSTRUCTIONS

Users must wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Users must remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users must remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

NOTE TO USER: As used on this label, the term "respirators" means properly fitting, well-maintained, half-mask canister or cartridge respirators which are MSHA/NIOSH-approved for organic vapors and acid gases. Examples of acceptable materials for protective clothing (e.g., gloves, overalls, jackets, and boots) required during application and handling of pentachlorophenol are polyvinyl acetate (PVA), polyvinyl chloride (PVC), neoprene, NBR (Buna-N), and nitrile. In addition, plastic-coated disposable coveralls impervious to dust are acceptable for dust protections.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of wastes.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless and in accordance with requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and that the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying a local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flames. Close container after each use.

The registrant has complied with all terms and conditions of the registration governing the composition of this product as approved by the United State Environmental Protection Agency under section 3 of the Federal Insecticide, Fungicide, and Rodenticide Act. The use of this product for any purpose other than those stated on the label, including use of this product in the manufacture or formulation of other pesticide products or in repackaging of the product, is prohibited.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its label.

This product:
- is intended for exterior use.
- is not intended for interior home and farm use.
- must not be used for pressure or thermal treating logs used in the construction of log homes except laminated beams or building components which are in ground contact and are subject to decay or insect infestation and where two coats of an appropriate sealer are applied. Urethane, shellac, latex, epoxy, enamel and varnish are acceptable sealers for pentachlorophenol treated wood.

This product is a concentrate and must be diluted with a diluent petroleum solvent. The product mixes easily with solvents such as kerosene, fuel oil, mineral spirits or petroleum
distillates. Add one part of DURA-TREAT 40 to up to nine parts of fuel oil, kerosene, or other hydrocarbon with the desired volatility, and mix well.

APPLICATION RESTRICTIONS:

Pressure treatment in commercial pressure facility allows for the attainment of proper retention and penetration levels and makes the treated wood products suitable for ground contact. To protect dry and/or seasoned lumber, timbers, posts, poles and other wooden members before construction and before placing in contact with the soil, the wood should be pressure treated in a commercial vessel capable of physically impregnating the wood and providing adequate penetration and retention. If temperature or time is used as the treating parameter, treat for 12 to 48 hours or until effective retention and penetration is achieved.

All wooden members must be free of bark before receiving treatment.

At the conclusion of the treatment, the cylinder must be ventilated by purging the post treatment cylinder through fresh air exchange. The ventilation process is considered complete after a minimum of 2 volume exchanges based on the empty treatment cylinder volume. The exhaust pipe of the vacuum system or any air moving device utilized in conducting the air purge must terminate into a containment vessel such as a treating solution work tank or water/effluent tank.

The ventilation process may be accomplished by one of the following methods: 1) activating an air purge system that operates while the cylinder door remains closed; or 2) using a device to open and hold open the cylinder door (no more than 6 inches) to allow adequate ventilation and activating the vacuum pump.

If the second method is utilized, at the conclusion of the treatment, no personnel may be within 15 feet of the cylinder when open (cracked) until the cylinder has been ventilated.

In the event of equipment malfunction, or to place the spacer to hold the door open during venting, only personnel wearing specified PPE are permitted within 15 feet of the cylinder opening prior to ventilation.

After ventilation is complete, the cylinder door may be completely opened.

After treatment, wood must be moved to a drip pad capable of recovering excess preservative until the wood is drip free.

The treatment process must include a final vacuum to remove excess preservative from the wood. The final vacuum must attain a vacuum equal to or greater than the initial vacuum. This vacuum must be held for an appropriate time period based on wood species, retention levels, and commodity treated to remove excess preservative from the wood.

For treated wood that will be used in marine or other aquatic or sensitive environments, a double vacuum must be used. Following the pressure period and once the pentachlorophenol has been pumped back to the work tank, a vacuum shall be applied for a minimum of one and a half hours at not less that 22 inches of Hg (560 Kpa) (adjusted for elevation) of vacuum to recover excess preservative. Then, depending on plant equipment: 1) vacuum for minimum of one and a half hours at not less than 22 inches of Hg (560 KPa) (adjusted for elevation); or 2) steam material for one hour minimum and then pull not less than 22 inches of Hg (560 KPa) (adjusted for elevation) vacuum for a minimum of one and a half hours. Maximum temperature during steaming shall not exceed 240 degrees F (115.5 degrees C), as specified in the Best Management Practices (Aug. 2006) issued by the Western Wood Preservers Association, Southern Pressure Treaters Association, Timber Piling Council, and Wood Preservation Canada.

As of December 31, 2013, for elevated temperature pressure treatment with pentachlorophenol, automatic, remotely operated devices must be used to open, close, lock and unlock cylinder doors.

As of December 31, 2013, for ambient pentachlorophenol treatments, an automatic locking/unlocking device must be used to accomplish locking and unlocking of the cylinder door.

Cylinder openings and door pits must use grating and additional measures such as sumps, dams or other devices which prevent or remove spillage of the preservative.

Personnel must not directly handle the charge cables, poles or hooks used to retrieve charge cables, or other equipment that has contacted the preservative without wearing chemical resistant gloves.

As of December 31, 2013, mechanical methods must be used to place/remove bridge rails.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

STORAGE: KEEP AWAY FROM FIRE. DO NOT STORE NEAR OPEN FLAME.
Storage of this product in unheated vessels is possible. Viscosity increases as temperature decreases. Avoid temperatures above 150 F. Containment areas are required. Observe all safety precautions. Do not contaminate with other materials. Do not mix with other pesticides or preservatives. Wear protective clothing, gloves and goggles when handling.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Triple rinse or equivalent. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of **KMG-BERNUTH, INC** or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold **KMG-BERNUTH, INC** and Seller harmless for any claims relating to such factors.

KMG-BERNUTH, INC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or **KMG-BERNUTH, INC,** and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, **KMG-BERNUTH, INC** MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

It is **KMG-BERNUTH, INC** intention that to the extent consistent with applicable law, KMG-BERNUTH, INC or the Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF KMG-BERNUTH, INC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGILIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF KMG-BERNUTH, INC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

KMG-BERNUTH, INC and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of **KMG-BERNUTH, INC.**(Continued on back)

Manufactured By:
KMG-Bernuth, Inc.
Houston, TX 77099 USA
800-322-8177

ATTACHMENT 10

Reg. No. 61483-2

EPA Est. No. 61483-AL-1

Net Contents: 5000 gals

greatly enhances penetration. Incising is especially effective in improving penetration in the heartwood areas of sawn surfaces.

Incising is practiced primarily on Douglas-fir, western hemlock, and western larch ties and timbers for pressure treatment and on cedar and Douglas-fir poles. Incising can result in significant reductions in strength (Chap. 5).

Cutting and Framing

All cutting and boring of holes should be done prior to preservative treatment. Cutting into the wood in any way after treatment will frequently expose the untreated interior of the timber and permit ready access to decay fungi or insects.

In some cases, wood structures can be designed so that all cutting and framing is done before treatment. Railroad companies have followed this practice and have found it not only practical but economical. Many wood-preserving plants are equipped to carry on such operations as the adzing and boring of crossties; gaining, roofing, and boring of poles; and framing of material for bridges and specialized structures, such as water tanks and barges.

Treatment of the wood with preservative oils results in little or no dimensional change. With waterborne preservatives, however, some change in the size and shape of the wood may occur even though the wood is redried to the moisture content it had before treatment. If precision fitting is necessary, the wood is cut and framed before treatment to its approximate final dimensions to allow for slight surfacing, trimming, and reaming of bolt holes. Grooves and bolt holes for timber connectors are cut before treatment and can be reamed out if necessary after treatment.

Application of Preservatives

Wood-preserving methods are of two general types: (a) pressure processes, in which the wood is impregnated in closed vessels under pressures considerably above atmospheric, and (b) nonpressure processes, which vary widely in the procedures and equipment used.

Pressure Processes

In commercial practice, wood is most often treated by immersing it in a preservative in a high-pressure apparatus and applying pressure to drive the preservative into the wood. Pressure processes differ in details, but the general principle is the same. The wood, on cars or trams, is run into a long steel cylinder, which is then closed and filled with preservative (Fig. 15–5). Pressure forces the preservative into the wood until the desired amount has been absorbed. Considerable preservative is absorbed, with relatively deep penetration. Three pressure processes are commonly used: full cell, modified full cell, and empty cell.

Full Cell

The full-cell (Bethel) process is used when the retention of a maximum quantity of preservative is desired. It is a standard procedure for timbers to be treated with creosote when protection against marine borers is required. Waterborne preservatives may be applied by the full-cell process if uniformity of penetration and retention is the primary concern. With waterborne preservatives, control over preservative retention is obtained by regulating the concentration of the treating solution.

Steps in the full-cell process are essentially the following:

1. The charge of wood is sealed in the treating cylinder, and a preliminary vacuum is applied for a half-hour or more to remove the air from the cylinder and as much as possible from the wood.
2. The preservative, at ambient or elevated temperature depending on the system, is admitted to the cylinder without breaking the vacuum.
3. After the cylinder is filled, pressure is applied until the wood will take no more preservative or until the required retention of preservative is obtained.
4. When the pressure period is completed, the preservative is withdrawn from the cylinder.
5. A short final vacuum may be applied to free the charge from dripping preservative.

When the wood is steamed before treatment, the preservative is admitted at the end of the vacuum period that follows steaming. When the timber has received preliminary conditioning by the Boulton or boiling-under-vacuum process, the cylinder can be filled and the pressure applied as soon as the conditioning period is completed.

Modified Full Cell

The modified full-cell process is basically the same as the full-cell process except for the amount of initial vacuum and the occasional use of an extended final vacuum. The modified full-cell process uses lower levels of initial vacuum; the actual amount is determined by the wood species, material size, and final retention desired. The modified full-cell process is commonly used for treatment of lumber with waterborne preservatives.

Empty Cell

The objective of the empty-cell process is to obtain deep penetration with a relatively low net retention of preservative. For treatment with oil preservatives, the empty-cell process should always be used if it will provide the desired retention. Two empty-cell processes, the Rueping and the Lowry, are commonly employed; both use the expansive force of compressed air to drive out part of the preservative absorbed during the pressure period.

The Rueping empty-cell process, often called the empty-cell process with initial air, has been widely used for many years in Europe and the United States. The following general procedure is employed:

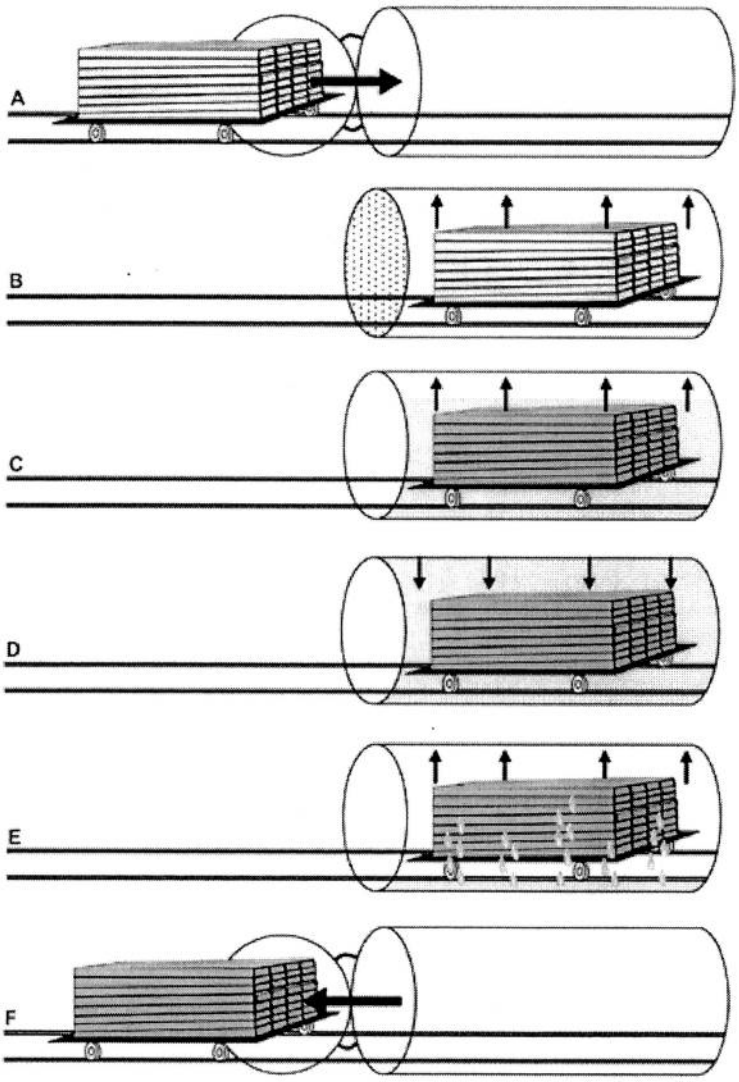


Figure 15–5. Typical steps in pressure treating process: A, untreated wood is placed in cylinder; B, a vacuum is applied to pull air out of the wood; C, the wood is immersed in solution while still under vacuum; D, pressure is applied to force the preservative into the wood; E, preservative is pumped out, and a final vacuum is pulled to remove excess preservative; F, excess preservative is pumped away, and the wood is removed from the cylinder.

1. Air under pressure is forced into the treating cylinder, which contains the charge of wood. The air penetrates some species easily, requiring but a few minutes application of pressure. In treating the more resistant species, common practice is to maintain air pressure from 1/2 to 1 h before admitting the preservative, but the necessity for lengthy air-pressure periods does not seem fully established. The air pressures employed generally range from 172 to 689 kPa (25 to 100 lb in^{-2}), depending on the net retention of preservative desired and the resistance of the wood.

2. After the period of preliminary air pressure, preservative is forced into the cylinder. As the preservative is pumped in, the air escapes from the treating cylinder into an equalizing or Rueping tank, at a rate that keeps the pressure constant within the cylinder. When the treating cylinder is filled with preservative, the treating pressure is increased above that of the initial air and is maintained until the wood will absorb no more preservative, or until enough has been absorbed to leave the required retention of preservative in the wood after the treatment.

3. At the end of the pressure period, the preservative is drained from the cylinder, and surplus preservative is removed from the wood with a final vacuum. The amount of preservative recovered can be from 20% to 60% of the gross amount injected.

The Lowry is often called the empty-cell process without initial air pressure. Preservative is admitted to the cylinder without either an initial air pressure or a vacuum, and the air originally in the wood at atmospheric pressure is imprisoned during the filling period. After the cylinder is filled with the preservative, pressure is applied, and the remainder of the treatment is the same as described for the Rueping treatment.

The Lowry process has the advantage that equipment for the full-cell process can be used without other accessories that the Rueping process usually requires, such as an air compressor, an extra cylinder or Rueping tank for the preservative, or a suitable pump to force the preservative into the cylinder against the air pressure. However, both processes have advantages and are widely and successfully used.

With poles and other products where bleeding of preservative oil is objectionable, the empty-cell process is followed by either heating in the preservative (expansion bath) at a maximum of 104 °C (220 °F) or a final steaming for a specified time limit at a maximum of 116 °C (240 °F) prior to the final vacuum.

Treating Pressures and Preservative Temperatures

The pressures used in treatments vary from about 345 to 1,723 kPa (50 to 250 lb in^{-2}), depending on the species and the ease with which the wood takes the treatment. Most commonly, pressures range from about 862 to 1,207 kPa (125 to 175 lb in^{-2}). Many woods are sensitive to high treating pressures, especially when hot. For example, AWPA standards permit a maximum pressure of 1,050 kPa (150 lb in^{-2}) in the treatment of redwood, eastern hemlock, and eastern white pine, while the limitation for oak is 1,723 kPa (250 lb in^{-2}).

AWPA T1 standard requires that the temperature of creosote and creosote solutions, as well as that of the oil-type preservatives, during the pressure period not be greater than 100 °C (212 °F). For the waterborne preservatives that contain chromium (ACC and CCA), the maximum solution temperature is limited to 50 °C (120 °F) to avoid premature precipitation of the preservative. For most other waterborne preservatives, the maximum solution temperature is 65 °C (150 °F), although a higher limit 93 °C (200 °F) is permitted for inorganic boron solutions.

Effect on Mechanical Properties

Coal-tar creosote, creosote solutions, and pentachlorophenol dissolved in petroleum oils are practically inert to wood and have no chemical influence that would affect its strength. Chemicals commonly used in waterborne salt preservatives, including chromium, copper, arsenic, and ammonia, are reactive with wood. Thus, these chemicals are potentially damaging to mechanical properties and may also promote corrosion of mechanical fasteners.

Significant reductions in mechanical properties may be observed if the treating and subsequent drying processes are not controlled within acceptable limits. Factors that influence the effect of the treating process on strength include (a) species of wood, (b) size and moisture content of the timbers treated, (c) type and temperature of heating medium, (d) length of the heating period in conditioning the wood for treatment and time the wood is in the hot preservative, (e) post-treatment drying temperatures, and (f) amount of pressure used. Most important of those factors are the severity and duration of the in-retort heating or post-treatment redrying conditions used. The effect of wood preservatives on the mechanical properties of wood is covered in Chapter 5.

Nonpressure Processes

The numerous nonpressure processes differ widely in the penetration and retention levels of preservative attained, and consequently in the degree of protection they provide to the treated wood. When similar retention and penetration levels are achieved, wood treated by a nonpressure method should have a service life comparable to that of wood treated by pressure. Nevertheless, results of nonpressure treatments, particularly those involving surface applications, are not generally as satisfactory as those of pressure treatment. The superficial processes do serve a useful purpose when more thorough treatments are impractical or exposure conditions are such that little preservative protection is required.

Nonpressure methods, in general, consist of (a) surface application of preservatives by brief dipping, (b) soaking in preservative oils or steeping in solutions of waterborne preservatives, (c) diffusion processes with waterborne preservatives, (d) vacuum treatment, and (e) a variety of miscellaneous processes.

Brief Dipping

It is a common practice to treat window sash, frames, and other millwork, either before or after assembly, by dipping the item in a water-repellent preservative.

In some cases, preservative oil penetrates the end surfaces of ponderosa pine sapwood as much as 25 to 76 mm (1 to 3 in.). However, end penetration in such woods as the heartwood of southern pines and Douglas-fir is much less. Transverse penetration of the preservative applied by brief dipping is very shallow, usually less than a millimeter (a few hundredths of an inch). The exposed end surfaces at joints are the most vulnerable to decay in millwork products; therefore, good end penetration is especially advantageous. Dip applications provide very limited protection to wood

CHAPTER 15

Wood Preservation

Stan T. Lebow, Research Forest Products Technologist

Contents

Many commonly used wood species can deteriorate if exposed to conditions that support growth of wood-degrading organisms (see Chap. 14). Wood products can be protected from the attack of decay fungi, harmful insects, or marine borers by applying chemical preservatives. Preservative treatments greatly increase the life of wood structures, thus reducing replacement costs and allowing more efficient use of forest resources. The degree of protection achieved depends on the preservative used and the proper penetration and retention of the chemicals. Some preservatives are more effective than others, and some are more adaptable to certain use requirements. To obtain long-term effectiveness, adequate penetration and retention are needed for each wood species, chemical preservative, and treatment method. Not only are different methods of treating wood available, but treatability varies among wood species—particularly their heartwood, which generally resists preservative treatment more than does sapwood. Although some tree species possess naturally occurring resistance to decay and insects (see Chap. 14), many are in short supply or are not grown in ready proximity to markets.

In considering preservative treatment processes and wood species, the combination must provide the required protection for the conditions of exposure and life of the structure. All these factors are considered by the consensus technical committees in setting reference levels required by the American Wood Protection Association (AWPA, formerly American Wood-Preservers' Association)) and ASTM International (formerly American Society for Testing and Materials). Details are discussed later in this chapter. The characteristics, appropriate uses, and availability of preservative formulations may have changed after preparation of this chapter. For the most current information on preservative formulations, the reader is encouraged to contact the appropriate regulatory agencies, standardization organizations, or trade associations. ***Note that mention of a chemical in this chapter does not constitute a recommendation.***

Wood Preservatives

Wood preservatives must meet two broad criteria: (1) They must provide the desired wood protection in the intended end use, and (2) they must do so without presenting unreasonable risks to people or the environment. Because wood preservatives are considered to be a type of pesticide, the U.S. Environmental Protection Agency (EPA) is responsible for their regulation. Federal law requires that before selling or distributing a preservative in the United States,

EPA United States Environmental Protection Agency

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EZ Query | Batch Reports | Form R Reports (NEW)

Overview | Law EXIT EPA | Customized Query | State Reports | Query | Model | Feedback | EF Home

TRI Query Results

Page No. 1

TRIS Facility ID Equal to 74738klhmphwy7e
Orig Received: Starting From jan-01-2009

Results are based on data extracted on 19-AUG-13

Generated SQL

```
SELECT DISTINCT TRI_REPORTING_FORM.REPORTING_YEAR, to_char
(TRI_REPORTING_FORM.ORIG_POSTMARK, 'YYYY-MM-DD'), to_char
(TRI_REPORTING_FORM.ORIG_RECEIVED, 'YYYY-MM-DD'),
TRI_REPORTING_FORM.CAS_CHEM_NAME from TRI_FACILITY ,
TRI_REPORTING_FORM where TRI_FACILITY.TRI_FACILITY_id =
'74738KLHMPHWY7E' and (TRI_REPORTING_FORM.ORIG_RECEIVED >= to_date('jan-
01-2009', 'MON-DD-YYYY')) and TRI_REPORTING_FORM.tri_facility_id =
TRI_FACILITY.tri_facility_id order by TRI_REPORTING_FORM.REPORTING_YEAR asc
```

Reporting Year	Orig Postmark	Orig Received	CAS Chem Name
2008	27-JUL-2009	06-AUG-2009	PENTACHLOROPHENOL
2009	30-JUN-2011	30-JUN-2011	1,2,4-TRIMETHYLBENZENE
2009	30-JUN-2011	30-JUN-2011	N-HEXANE
2009	30-JUN-2011	30-JUN-2011	NAPHTHALENE
2009	30-JUN-2011	30-JUN-2011	PENTACHLOROPHENOL
2010	30-JUN-2011	30-JUN-2011	1,2,4-TRIMETHYLBENZENE
2010	30-JUN-2011	30-JUN-2011	N-HEXANE
2010	30-JUN-2011	30-JUN-2011	NAPHTHALENE
2010	30-JUN-2011	30-JUN-2011	PENTACHLOROPHENOL
2011	19-JUN-2012	19-JUN-2012	1,2,4-TRIMETHYLBENZENE
2011	19-JUN-2012	19-JUN-2012	N-HEXANE
2011	19-JUN-2012	19-JUN-2012	NAPHTHALENE
2011	19-JUN-2012	19-JUN-2012	PENTACHLOROPHENOL
2012	02-JUL-2013	02-JUL-2013	1,2,4-TRIMETHYLBENZENE
2012	02-JUL-2013	02-JUL-2013	N-HEXANE

26 Days

364 Days

ATTACHMENT 12

2012	02-JUL-2013	02-JUL-2013	NAPHTHALENE
2012	02-JUL-2013	02-JUL-2013	PENTACHLOROPHENOL

Total number of records returned from your query: 17
Number of Records shown on this page: 17

Output to CSV File

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Overview | Law EXIT EPA | Customized Query | State Reports | Query | Model | Feedback | EF Home

TRI Chemical Report

OKLAHOMA POLE & LUMBER CO

TRI Facility ID: 74738KLHMPHWY7E
Query executed on SEP-05-2013
Results are based on data extracted on AUG-19-2013

Chemical Name	TRI Chemical ID	2012	2011	2010	2009	2008
1,2,4-TRIMETHYLBENZENE	000095636	Reported	Reported	Reported	Reported	Not Reported
N-HEXANE	000110543	Reported	Reported	Reported	Reported	Not Reported
NAPHTHALENE	000091203	Reported	Reported	Reported	Reported	Not Reported
PENTACHLOROPHENOL	000087865	Reported	Reported	Reported	Reported	Reported

ATTACHMENT 13

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Last updated on Thursday, September 5th, 2013
http://ofmint.rtpnc.epa.gov/enviro/tris_chemall.tris_chemall_report

Oklahoma Pole & Lumber Company
Toxic Release Inventory Threshold Determinations
Reporting Year: 2011

Product Purchased	Density (lbs/gal)	Total gallons Purchased	Total lbs	Max on Site at One time (lbs)	Contains SARA 313 Chemical?
Diesel	7.3392	804000	5900717	292382	Yes
Dura-Treat 40 Wood Preserver	9.76	105000	1024800	92707	Yes

Notes:

1. Diesel is used in a mixture for wood preserving. Therefore, the diesel is "processed".
2. Dura-Treat contains 42% by weight pentachlorophenol and is used in a mixture with diesel for preserving of wood. Therefore, the material is "processed".
3. No new chemicals/chemical compounds are created as a result of blending.

Calculations:

Total lbs = density lbs/gal x gals/yr

Max on site (lbs) = maximum storage capacity gal x density lbs/gal

Oklahoma Pole & Lumber Company
Toxic Release Inventory Threshold Determinations
Reporting Year: 2011

Table 3-4 Estimated Concentration Values of EPCRA Section 313 Constituents in Crude Oil and Petroleum Products (Weight Percent) (EPA 745-B-00-002)

INGREDIENT NAME	CAS No.	De Minimus Limit[1] (wt%)	Diesel Fuel	Max lbs Processed	Threshold Reporting Qty[2] (lbs)	Meets Threshold for Reporting?	Max Wt on Site[3] (lbs)
Benzene	71-43-2	0.1	0.0008	0.000	25,000	No	2.34
Biphenyl	92-52-4	1	0.1	0.000	25,000	No	292.38
Ethyl benzene	100-41-4	0.1	0.013	0.000	25,000	No	38.01
n-Hexane	110-54-3	1	1	59007.2	25,000	Yes	2923.82
Naphthalene	91-20-3	0.1	0.55	32453.9	25,000	Yes	1608.10
Phenanthrene	85-01-8	1	0.125	0.000	25,000	No	365.48
Phenol	108-95-2	1	0.064	0.000	25,000	No	187.12
Styrene	100-42-5	0.1	0.032	0.000	25,000	No	93.56
Toluene	108-88-3	1	0.032	0.000	25,000	No	93.56
1,2,4- Trimethylbenzene	95-63-6	1	1	59007.2	25,000	Yes	2923.82
Xylene, mixed isomers	1330-20-7	1	0.29	0.000	25,000	No	847.91
Arsenic	7440-38-2	0.1	8.5E-06	0.000	25,000	No	0.02
Beryllium	7440-41-7	0.1	0.000005	0.000	25,000	No	0.01
Cadmium	7440-43-9	0.1	0.000021	0.000	25,000	No	0.06
Chromium	7440-47-3	1	0.000095	0.000	25,000	No	0.28
Copper	7440-50-8	1	0.00056	0.000	25,000	No	1.64
Manganese	7439-96-5	1	0.000021	0.000	25,000	No	0.06
Mercury	7439-97-6	*	0.00004	2.360	10	No	0.12
Nickel	7440-02-0	0.1	0.000338	0.000	25,000	No	0.99

Oklahoma Pole & Lumber Company
Toxic Release Inventory Threshold Determinations
Reporting Year: 2011

Dura-Treat Chemical	CAS	Wt%	De Minimus Limit (lbs)	Max lbs Processed	Threshold Reporting Qty (lbs)	Meets Threshold?	Max lbs on site[3]
Pentachlorophenol	87-86-5	42	0.1	430,416	25000	Yes	38937

Notes:

[1] De Minimus limit - if concentration of chemical in product is less than deminimis wt%, it does not have to be included in determination of threshold.

"*" means there is no de minimis limit. Therefore, everything must be included in determining reporting threshold.

[2] Material processed has reporting threshold of 25,000 lbs with exception of Mercury, which has a reporting threshold of 10 lbs.

[3] Max lbs on site determined by maximum volume of materials on site that contain chemical multiplied by the wt% of chemical.

Calculations:

Max lbs processed = Σ(total lbs/yr material x wt% of chemical if wt% is equal to or greater than de minimis wt%)
(If wt% is below de minimis level, it is not included in the total lbs processed.)

I certify that the above information is true and correct to the best of my knowledge.

Rick Worley

Signature

Date

Rick Worley, President
Oklahoma Pole & Lumber Company
Broken Bow, Oklahoma

Stranne, Lawrence

From: Jana S. Warren [jana@vitalenv.com]
Sent: Tuesday, June 18, 2013 6:39 PM
To: Stranne, Lawrence
Subject: Oklahoma Pole & Lumber Co. TRI ID 74738KLHMPHWY7E
Attachments: 2011 OKPL TRI Calcs.pdf

Lawrence,

Attached is the 2011 documents used for reporting in the TRI for Oklahoma Pole & Lumber Company. Basically the first 9 pages are what you probably need. The chemicals that were reported on Form A are not PBT chemicals, less than 1 million lbs were processed, manufactured, or otherwise used, and releases are less than 500 lbs. Per the TRI guidance document, this allows the use of Form A. I may have been too stringent in my analysis of diesel fuel, but I prefer to err on the side of caution. Let me know if you have any questions.

Jana S. Warren
M.S. Environmental Science

Vital Environmental Consulting
7656 County Road 452 West
Laneville, Texas 75667
(903) 746-1349
Fax (903) 854-2312
www.vitalenv.com

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From: Stranne, Lawrence [mailto:stranne.lawrence@epa.gov]
Sent: Tuesday, June 18, 2013 10:38 AM
To: jana@vitalenv.com
Subject: Contact information

Jana Warren
Vital Environmental Consulting
Lanesville, Texas

Lawrence V. Stranne, P.E.
Inspector
US EPA (Environmental Protection Agency)
1445 Ross Avenue
Dallas, TX 75202
214-665-7337
E-mail: stranne.lawrence@epa.gov
Fax: 214-665-6655

Oklahoma Pole & Lumber
Toxic Release Inventory Sumamry
Reporting Year: **2011**

Chemical	Fug Emissions lbs	Point Source Emissions lbs	Waste lbs	Required TRI Form	
n-Hexane	114.65	0.33	33.32	A	148.3
Naphthalene	63.06	0.18	18.32	A	81.56
1,2,4- Trimethylbenzene	114.65	0.33	33.32	A	148.3
Pentachlorophenol	61.95	77.75	456.83	R	

Oklahoma Pole & Lumber Company
Toxic Release Inventory Threshold Determinations
Reporting Year: 2011

Product Purchased	Density (lbs/gal)	Total gallons Purchased	Total lbs	Max on Site at One time (lbs)	Contains SARA 313 Chemical?
Diesel	7.3392	804000	5900717	292382	Yes
Dura-Treat 40 Wood Preserver	9.76	105000	1024800	92707	Yes

Notes:

1. Diesel is used in a mixture for wood preserving. Therefore, the diesel is "processed".
2. Dura-Treat contains 42% by weight pentachlorophenol and is used in a mixture with diesel for preserving of wood. Therefore, the material is "processed".
3. No new chemicals/chemical compounds are created as a result of blending.

Calculations:

Total lbs = density lbs/gal x gals/yr

Max on site (lbs) = maximum storage capacity gal x density lbs/gal

Oklahoma Pole & Lumber Company
Toxic Release Inventory Threshold Determinations
Reporting Year: 2011

Table 3-4 Estimated Concentration Values of EPCRA Section 313 Constituents in Crude Oil and Petroleum Products (Weight Percent) (EPA 745-B-00-002)

INGREDIENT NAME	CAS No.	De Minimus Limit[1] (wt%)	Diesel Fuel	Max lbs Processed	Threshold Reporting Qty[2] (lbs)	Meets Threshold for Reporting?	Max Wt on Site[3] (lbs)
Benzene	71-43-2	0.1	0.0008	0.000	25,000	No	2.34
Biphenyl	92-52-4	1	0.1	0.000	25,000	No	292.38
Ethyl benzene	100-41-4	0.1	0.013	0.000	25,000	No	38.01
n-Hexane	110-54-3	1	1	59007.2	25,000	Yes ✓	2923.82
Naphthalene	91-20-3	0.1	0.55	32453.9	25,000	Yes ✓	1608.10
Phenanthrene	85-01-8	1	0.125	0.000	25,000	No	365.48
Phenol	108-95-2	1	0.064	0.000	25,000	No	187.12
Styrene	100-42-5	0.1	0.032	0.000	25,000	No	93.56
Toluene	108-88-3	1	0.032	0.000	25,000	No	93.56
1,2,4- Trimethylbenzene	95-63-6	1	1	59007.2	25,000	Yes ✓	2923.82
Xylene, mixed isomers	1330-20-7	1	0.29	0.000	25,000	No	847.91
Arsenic	7440-38-2	0.1	8.5E-06	0.000	25,000	No	0.02
Beryllium	7440-41-7	0.1	0.000005	0.000	25,000	No	0.01
Cadmium	7440-43-9	0.1	0.000021	0.000	25,000	No	0.06
Chromium	7440-47-3	1	0.000095	0.000	25,000	No	0.28
Copper	7440-50-8	1	0.00056	0.000	25,000	No	1.64
Manganese	7439-96-5	1	0.000021	0.000	25,000	No	0.06
Mercury	7439-97-6	*	0.00004	2.360	10	No	0.12
Nickel	7440-02-0	0.1	0.000338	0.000	25,000	No	0.99

Oklahoma Pole & Lumber Company
Toxic Release Inventory Threshold Determinations
Reporting Year: 2011

Dura-Treat Chemical	CAS	Wt%	De Minimus Limit (lbs)	Max lbs Processed	Threshold Reporting Qty (lbs)	Meets Threshold?	Max lbs on site[3]
Pentachlorophenol	87-86-5	42	0.1	430,416	25000	Yes	38937

Notes:

[1] De Minimus limit - if concentration of chemical in product is less than deminimis wt%, it does not have to be included in determination of threshold.

"*" means there is no de minimis limit. Therefore, everything must be included in determining reporting threshold.

[2] Material processed has reporting threshold of 25,000 lbs with exception of Mercury, which has a reporting threshold of 10 lbs.

[3] Max lbs on site determined by maximum volume of materials on site that contain chemical multiplied by the wt% of chemical.

Calculations:

Max lbs processed = Σ(total lbs/yr material x wt% of chemical if wt% is equal to or greater than de minimis wt%)
(If wt% is below de minimis level, it is not included in the total lbs processed.)

Oklahoma Pole & Lumber Company
Toxic Release Inventory Report
Releases in Waste
Reporting Year: **2011**

Waste Disposal:

Diesel/ pentachlorophenol/ water mixture	4455	lbs to Clean Harbors Deer Park
Diesel/ pentachlorophenol/ water mixture	0	lbs to Clean Harbors El Dorado
Pentachlorophenol debris-solids	6586	lbs to Clean Harbors Deer Park
Pentachlorophenol debris-solids	0	lbs to Clean Harbors El Dorado

Mixture Composition	wt%	Deer Park	El Dorado
Diesel	60.00%	2673.00	0.00
Pentachlorophenol	10.00%	445.50	0.00

Debris-solids Chemical %	wt%	Deer Park	El Dorado
Diesel	10.00%	658.6	0
Pentachlorophenol	0.17%	11.32792	0

Mixture Chemical	Max Wt%	Deer Park	El Dorado	Total to Waste
n-Hexane	1.00%	33.32	0.00	33.32
Naphthalene	0.55%	18.32	0.00	18.32
1,2,4- Trimethylbenzene	1.00%	33.32	0.00	33.32
Pentachlorophenol	100%	456.83	0.00	456.83

Disposal Facilities

Clean Harbors Deer Park Incineration Facility
2027 Independence Parkway South
Deer Park, Texas 77536
TXD055141378

Clean Harbors El Dorado Incineration Facility
309 American Circle
El Dorado, Arkansas 71730
ARD069748192

Oklahoma Pole & Lumber
Toxic Release Inventory Report
Releases to Air from Diesel and Pentachlorophenol
Loading into Drums for Disposal and Work Tanks
Reporting Year: 2011

INPUT PARAMETERS AND CONSTANTS

Parameter	Mixture	Diesel	Dura Treat
Molecular weight (lb/lb-mole)	200.5	188	266.32
Max Vapor Pressure (psia)	0.02167	0.022	0.0193368
Avg. Temp (Rankine)	560	560	560
Max Saturation factor	1.45	1.45	1.45
Gallons Loaded / yr	4,455	804,000	105,000
Diesel Wt%	84.03%	100.00%	0.00%
Dura-Treat Wt%	15.90%	0.00%	100.00%

Summary of VOC Emissions for Loading Operations

FIN	EPN	Max Emissions (lbs)
WASTELOAD	LOADINGFUG	0.6245
DIESELLOAD	LOADINGFUG	107.2839
PENTALOAD1	LOADINGFUG	17.4452

AP-42 Chapter 5.2 Equation 1 used for calculation of emissions.

Calculations:

Total lbs Uncontrolled VOC = 12.46 x M.W. x v.p. x saturation factor/ temp R x total gallons/1000

Pentachlorophenol

42% by Wt of Dura-Treat

FIN	EPN	Penta Emissions (lbs)
WASTELOAD1	LOADINGFUG	0.04
PENTALOAD1	LOADINGFUG	7.33

Waste lbs Fugitives = Wt% Penta in Dura-Treat x Wt% Dura-Treat in waste x lbs emissions
Penta loading lbs fugitives = Wt% Penta in Dura-Treat x lbs Penta Load emissions

Oklahoma Pole & Lumber
Toxic Release Inventory Report
Releases to Air from Diesel and Pentachlorophenol
Loading into Drums for Disposal and Work Tanks
Reporting Year: 2011

Table 3-4 Estimated Concentration Values of EPCRA Section 313 Constituents in Crude Oil and Petroleum Products (Weight Percent) (EPA 745-B-00-002)

INGREDIENT NAME	CAS No.	Diesel Fuel	Waste Emissions (lbs)	Diesel Load Emissions (lbs)	Total Emissions (lbs)
Benzene	71-43-2	0.0008	0.00	0.09	0.09
Biphenyl	92-52-4	0.1	0.05	10.73	10.78
Ethyl benzene	100-41-4	0.013	0.01	1.39	1.40
n-Hexane	**110-54-3**	**1**	**0.52**	**107.28**	**107.81**
Naphthalene	**91-20-3**	**0.55**	**0.29**	**59.01**	**59.29**
Phenanthrene	85-01-8	0.125	0.07	13.41	13.48
Phenol	108-95-2	0.064	0.03	6.87	6.90
Styrene	100-42-5	0.032	0.02	3.43	3.45
Toluene	108-88-3	0.032	0.02	3.43	3.45
1,2,4- Trimethylbenzene	**95-63-6**	**1**	**0.52**	**107.28**	**107.81**
Xylene, mixed isomers	1330-20-7	0.29	0.15	31.11	31.26
Arsenic	7440-38-2	0.0000085	0.00	0.00	0.00
Beryllium	7440-41-7	0.000005	0.00	0.00	0.00
Cadmium	7440-43-9	0.000021	0.00	0.00	0.00
Chromium	7440-47-3	0.000095	0.00	0.01	0.01
Copper	7440-50-8	0.00056	0.00	0.06	0.06
Manganese	7439-96-5	0.000021	0.00	0.00	0.00
Mercury	7439-97-6	0.00004	0.00	0.00	0.00
Nickel	7440-02-0	0.000338	0.00	0.04	0.04

Fugitive lbs of Compound = total lbs emissions x Wt% of Diesel x Wt% of compound

Oklahoma Pole & Lumber Company
Toxic Release Inventory Report
Storage Tank Emissions Calculations
Reporting Year: 2011

FIN/EPN	FIN Description	Product Stored	Tank Type	Designated Tank Capacity (gals)	Ht / L (ft)	Dia (ft)	Through put (gals)	TANKS 4.09 Total lbs/yr	Diesel	n-Hexane	Naphthalene	1,2,4-Trimethylbenzene	Penta chloro phenol
WORKTANK01	Work Tank	Diesel - Penta Mixture	HFR	17,490	30.0	10.0	454,500	32.64	10.68	0.1068	0.05874	0.1068	17.43
WORKTANK02	Work Tank	Diesel - Penta Mixture	HFR	16,195	28.0	10.0	454,500	32.64	10.68	0.1068	0.05874	0.1068	17.43
STRGTANK03	Diesel Tank	Diesel	VFR	10,364	13.0	12.0	804,000	11.84	11.84	0.1184	0.06512	0.1184	0
STRGTANK04	Dura Treat Tank	Dura Treat	VFR	5,288	10.0	9.5	105,000	102.15	0	0	0	0	42.89
STRGTANK05	Emtpy	Empty	VFR	8,000	14.0	10.0	0	0	0	0	0	0	0
STRGTANK06	Emtpy	Empty	HFR	2,000	9.5	6.0	0	0	0	0	0	0	0
STRGTANK07	Emtpy	Empty	HFR	2,000	9.5	6.0	0	0	0	0	0	0	0
STRGTANK08	Emtpy	Empty	HFR	2,000	9.5	6.0	0	0	0	0	0	0	0
STRGTANK09	Emtpy	Empty	HFR	2,000	9.5	6.0	0	0	0	0	0	0	0
Total lbs all Tanks								**179.27**	**33.20**	**0.33**	**0.18**	**0.33**	**77.75**

Work Tanks represent the working losses not accounted for in AP-42 Chapter 10.8 Emission factor.

Work Tank Mixture ratio 7 gals diesel: 1 gal Dura-Treat

Component	Density (lbs/gal)	Wt% of Mixture	LMW	VMW	VP
Diesel	7.3392	84.04%	188	130	0.022
Dura-Treat	9.76	15.96%	266.3	184	0.01934
Mixture	7.6418	100.00%	200.5	138.62	0.02167

Pentachlorophenol weight % of Dura-Treat = 42%

Wt% Penta = (Dura-Treat lbs/gal x gal/mix x wt% Penta) / (diesel lbs/gal x gal/mix + Dura-Treat lbs/gal x gal/mix)

= 6.71% by wt of mixture

Diesel Component	Max Wt% in diesel	Wt% in Mixture
n-Hexane	1.00%	0.840%
Naphthalene	0.55%	0.462%
1,2,4-Trimethylbenzene	1.00%	0.840%

Oklahoma Pole & Lumber Company
Toxic Release Inventory Report
Fugitive Emissions Calculations
Reporting Year: 2011

Fugitive Emissions from Treatment Processes

Using AP-42 Chapter 10.8, Table 10.8-1

Emission Factor for Total VOC:	0.00074	lbs/ft^3 of treated wood
Total cubic feet of treated wood:	1100000	ft3
Total VOC Emissions from Process:	814	lbs
Pentaclorophenol	54.58	lbs
n-Hexane	6.84	lbs
Naphthalene	3.76	lbs
1,2,4-Trimethylbenzene	6.84	lbs

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	OPLC STRGTANK03
City:	Broken Bow
State:	Oklahoma
Company:	Oklahoma Pole & Lumber
Type of Tank:	Vertical Fixed Roof Tank
Description:	Diesel storage tank

Tank Dimensions

Shell Height (ft):	13.00
Diameter (ft):	12.00
Liquid Height (ft) :	12.25
Avg. Liquid Height (ft):	6.00
Volume (gallons):	10,364.00
Turnovers:	77.58
Net Throughput(gal/yr):	804,000.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft)	0.00
Slope (ft/ft) (Cone Roof)	0.06

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig)	0.03

Meterological Data used in Emissions Calculations: Fort Smith, Arkansas (Avg Atmospheric Pressure = 14.51 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

OPLC STRGTANK03 - Vertical Fixed Roof Tank
Broken Bow, Oklahoma

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	62.49	56.51	68.47	60.56	0.0071	0.0058	0.0086	130.0000			188.00	Option 1: VP60 = .0065 VP70 = .009

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

OPLC STRGTANK03 - Vertical Fixed Roof Tank
Broken Bow, Oklahoma

Annual Emission Calcaulations

Standing Losses (lb):	2.0305
Vapor Space Volume (cu ft):	805.8185
Vapor Density (lb/cu ft):	0.0002
Vapor Space Expansion Factor:	0.0419
Vented Vapor Saturation Factor:	0.9973
Tank Vapor Space Volume:	
Vapor Space Volume (cu ft):	805.8185
Tank Diameter (ft):	12.0000
Vapor Space Outage (ft):	7.1250
Tank Shell Height (ft):	13.0000
Average Liquid Height (ft):	6.0000
Roof Outage (ft):	0.1250
Roof Outage (Cone Roof)	
Roof Outage (ft):	0.1250
Roof Height (ft):	0.0000
Roof Slope (ft/ft):	0.0625
Shell Radius (ft):	6.0000
Vapor Density	
Vapor Density (lb/cu ft):	0.0002
Vapor Molecular Weight (lb/lb-mole):	130.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0071
Daily Avg. Liquid Surface Temp. (deg. R):	522.1583
Daily Average Ambient Temp. (deg. F):	60.5375
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	520.2275
Tank Paint Solar Absorptance (Shell):	0.1700
Tank Paint Solar Absorptance (Roof):	0.1700
Daily Total Solar Insulation Factor (Btu/sqft day):	1,444.2395
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.0419
Daily Vapor Temperature Range (deg. R):	23.9326
Daily Vapor Pressure Range (psia):	0.0028
Breather Vent Press. Setting Range(psia):	0.0600
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0071
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.0058
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.0086
Daily Avg. Liquid Surface Temp. (deg R):	522.1583
Daily Min. Liquid Surface Temp. (deg R):	516.1752
Daily Max. Liquid Surface Temp. (deg R):	528.1415
Daily Ambient Temp. Range (deg. R):	23.6917
Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.9973
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0071
Vapor Space Outage (ft):	7.1250
Working Losses (lb):	9.8081
Vapor Molecular Weight (lb/lb-mole):	130.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0071
Annual Net Throughput (gal/yr.):	804,000.0000
Annual Turnovers:	77.5762
Turnover Factor:	0.5534
Maximum Liquid Volume (gal):	10,364.0000
Maximum Liquid Height (ft):	12.2500
Tank Diameter (ft):	12.0000
Working Loss Product Factor:	1.0000
Total Losses (lb):	11.8386

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

OPLC STRGTANK03 - Vertical Fixed Roof Tank
Broken Bow, Oklahoma

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Distillate fuel oil no. 2	9.81	2.03	11.84

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	OPLC STRGTANK04
City:	Broken Bow
State:	Oklahoma
Company:	Oklahoma Pole & Lumber
Type of Tank:	Vertical Fixed Roof Tank
Description:	5288 gal Pentachlorophenol Tank

Tank Dimensions

Shell Height (ft):	10.00
Diameter (ft):	9.50
Liquid Height (ft) :	9.00
Avg. Liquid Height (ft):	4.50
Volume (gallons):	4,772.14
Turnovers:	22.00
Net Throughput(gal/yr):	105,000.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft)	0.00
Slope (ft/ft) (Cone Roof)	0.06

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig)	0.03

Meterological Data used in Emissions Calculations: Fort Smith, Arkansas (Avg Atmospheric Pressure = 14.51 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

OPLC STRGTANK04 - Vertical Fixed Roof Tank
Broken Bow, Oklahoma

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Dura Treat	All	62.49	56.51	68.47	60.56	0.1452	0.0080	0.1767	184.0000			266.32	
Pentachlorophenol						0.1452	0.1186	0.1767	184.0000	0.4200	0.4199	266.34	Option 2: A=6.9781, B=1431.05, C=217.56
Unidentified Components						0.1452	0.0365	0.1224	184.0000	0.5800	0.5801	266.31	

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

OPLC STRGTANK04 - Vertical Fixed Roof Tank
Broken Bow, Oklahoma

Annual Emission Calcaulations	
Standing Losses (lb):	35.3581
Vapor Space Volume (cu ft):	396.8664
Vapor Density (lb/cu ft):	0.0048
Vapor Space Expansion Factor:	0.0534
Vented Vapor Saturation Factor:	0.9587
Tank Vapor Space Volume:	
Vapor Space Volume (cu ft):	396.8664
Tank Diameter (ft):	9.5000
Vapor Space Outage (ft):	5.5990
Tank Shell Height (ft):	10.0000
Average Liquid Height (ft):	4.5000
Roof Outage (ft):	0.0990
Roof Outage (Cone Roof)	
Roof Outage (ft):	0.0990
Roof Height (ft):	0.0000
Roof Slope (ft/ft):	0.0625
Shell Radius (ft):	4.7500
Vapor Density	
Vapor Density (lb/cu ft):	0.0048
Vapor Molecular Weight (lb/lb-mole):	184.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.1452
Daily Avg. Liquid Surface Temp. (deg. R):	522.1583
Daily Average Ambient Temp. (deg. F):	60.5375
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	520.2275
Tank Paint Solar Absorptance (Shell):	0.1700
Tank Paint Solar Absorptance (Roof):	0.1700
Daily Total Solar Insulation Factor (Btu/sqft day):	1,444.2395
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.0534
Daily Vapor Temperature Range (deg. R):	23.9326
Daily Vapor Pressure Range (psia):	0.1687
Breather Vent Press. Setting Range(psia):	0.0600
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.1452
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.0080
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.1767
Daily Avg. Liquid Surface Temp. (deg R):	522.1583
Daily Min. Liquid Surface Temp. (deg R):	516.1752
Daily Max. Liquid Surface Temp. (deg R):	528.1415
Daily Ambient Temp. Range (deg. R):	23.6917
Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.9587
Vapor Pressure at Daily Average Liquid: Surface Temperature (psia):	0.1452
Vapor Space Outage (ft):	5.5990
Working Losses (lb):	66.7920
Vapor Molecular Weight (lb/lb-mole):	184.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.1452
Annual Net Throughput (gal/yr.):	105,000.0000
Annual Turnovers:	22.0027
Turnover Factor:	1.0000
Maximum Liquid Volume (gal):	4,772.1358
Maximum Liquid Height (ft):	9.0000
Tank Diameter (ft):	9.5000
Working Loss Product Factor:	1.0000
Total Losses (lb):	102.1501

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

OPLC STRGTANK04 - Vertical Fixed Roof Tank
Broken Bow, Oklahoma

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Dura Treat	66.79	35.36	102.15
Pentachlorophenol	28.04	14.85	42.89
Unidentified Components	38.75	20.51	59.26

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	OPLC WORKTANK01
City:	Broken Bow
State:	Oklahoma
Company:	Oklahoma Pole & Lumber
Type of Tank:	Horizontal Tank
Description:	18000 gallon working blend tank

Tank Dimensions

Shell Length (ft):	30.00
Diameter (ft):	10.00
Volume (gallons):	17,490.00
Turnovers:	25.99
Net Throughput(gal/yr):	454,500.00
Is Tank Heated (y/n):	Y
Is Tank Underground (y/n):	N

Paint Characteristics

Shell Color/Shade:	Gray/Light
Shell Condition	Good

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig)	150.00

Meterological Data used in Emissions Calculations: Fort Smith, Arkansas (Avg Atmospheric Pressure = 14.51 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

OPLC WORKTANK01 - Horizontal Tank
Broken Bow, Oklahoma

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Wood Treat Blend	All	67.95	58.23	77.68	62.78	0.0217	0.0217	0.0217	139.0000			200.00	
Distillate fuel oil no. 2						0.0085	0.0061	0.0113	130.0000	0.8404	0.3271	188.00	Option 1: VP60 = .0065 VP70 = .009
Pentachlorophenol						0.1737	0.1258	0.2365	184.0000	0.0671	0.5340	266.34	Option 2: A=6.9781, B=1431.05, C=217.56
Unidentified Components						0.0964	-0.1199	-0.0058	78.2230	0.0925	0.1389	332.91	

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

OPLC WORKTANK01 - Horizontal Tank
Broken Bow, Oklahoma

Annual Emission Calcaulations

Standing Losses (lb):	0.0000
Vapor Space Volume (cu ft):	1,500.7608
Vapor Density (lb/cu ft):	0.0005
Vapor Space Expansion Factor:	0.0000
Vented Vapor Saturation Factor:	0.9943
Tank Vapor Space Volume:	
Vapor Space Volume (cu ft):	1,500.7608
Tank Diameter (ft):	10.0000
Effective Diameter (ft):	19.5491
Vapor Space Outage (ft):	5.0000
Tank Shell Length (ft):	30.0000
Vapor Density	
Vapor Density (lb/cu ft):	0.0005
Vapor Molecular Weight (lb/lb-mole):	139.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0217
Daily Avg. Liquid Surface Temp. (deg. R):	527.6230
Daily Average Ambient Temp. (deg. F):	60.5375
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	522.4475
Tank Paint Solar Absorptance (Shell):	0.5400
Daily Total Solar Insulation Factor (Btu/sqft day):	1,444.2395
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.0000
Daily Vapor Temperature Range (deg. R):	19.4475
Daily Vapor Pressure Range (psia):	0.0000
Breather Vent Press. Setting Range(psia):	150.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0217
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.0217
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.0217
Daily Avg. Liquid Surface Temp. (deg R):	527.6230
Daily Min. Liquid Surface Temp. (deg R):	517.8993
Daily Max. Liquid Surface Temp.(deg R):	537.3468
Daily Ambient Temp. Range (deg. R):	23.6917
Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.9943
Vapor Pressure at Daily Average Liquid: Surface Temperature (psia):	0.0217
Vapor Space Outage (ft):	5.0000
Working Losses (lb):	32.6407
Vapor Molecular Weight (lb/lb-mole):	139.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0217
Annual Net Throughput (gal/yr.):	454,500.0000
Annual Turnovers:	25.9863
Turnover Factor:	1.0000
Tank Diameter (ft):	10.0000
Working Loss Product Factor:	1.0000
Total Losses (lb):	32.6407

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

OPLC WORKTANK01 - Horizontal Tank
Broken Bow, Oklahoma

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Pentachlorophenol	17.43	0.00	17.43
Unidentified Components	4.54	0.00	4.54
Wood Treat Blend	32.64	0.00	32.64
Distillate fuel oil no. 2	10.68	0.00	10.68

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	OPLC WORKTANK02
City:	Broken Bow
State:	Oklahoma
Company:	Oklahoma Pole & Lumber
Type of Tank:	Horizontal Tank
Description:	16,000 gallon working bend tank

Tank Dimensions

Shell Length (ft):		28.00
Diameter (ft):		10.00
Volume (gallons):		16,195.00
Turnovers:		28.06
Net Throughput(gal/yr):		454,500.00
Is Tank Heated (y/n):	Y	
Is Tank Underground (y/n):	N	

Paint Characteristics

Shell Color/Shade:	Gray/Light
Shell Condition	Good

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig)	150.00

Meterological Data used in Emissions Calculations: Fort Smith, Arkansas (Avg Atmospheric Pressure = 14.51 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

OPLC WORKTANK02 - Horizontal Tank
Broken Bow, Oklahoma

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Wood Treat Blend	All	67.95	58.23	77.68	62.78	0.0217	0.0217	0.0217	139.0000			200.00	
Distillate fuel oil no. 2						0.0085	0.0061	0.0113	130.0000	0.8404	0.3271	188.00	Option 1: VP60 = .0065 VP70 = .009
Pentachlorophenol						0.1737	0.1258	0.2365	184.0000	0.0671	0.5340	266.34	Option 2: A=6.9781, B=1431.05, C=217.56
Unidentified Components						0.0964	-0.1199	-0.0058	78.2230	0.0925	0.1389	332.91	

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

OPLC WORKTANK02 - Horizontal Tank
Broken Bow, Oklahoma

Annual Emission Calcaulations

Standing Losses (lb):	0.0000
Vapor Space Volume (cu ft):	1,400.7101
Vapor Density (lb/cu ft):	0.0005
Vapor Space Expansion Factor:	0.0000
Vented Vapor Saturation Factor:	0.9943
Tank Vapor Space Volume:	
Vapor Space Volume (cu ft):	1,400.7101
Tank Diameter (ft):	10.0000
Effective Diameter (ft):	18.8862
Vapor Space Outage (ft):	5.0000
Tank Shell Length (ft):	28.0000
Vapor Density	
Vapor Density (lb/cu ft):	0.0005
Vapor Molecular Weight (lb/lb-mole):	139.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0217
Daily Avg. Liquid Surface Temp. (deg. R):	527.6230
Daily Average Ambient Temp. (deg. F):	60.5375
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	522.4475
Tank Paint Solar Absorptance (Shell):	0.5400
Daily Total Solar Insulation Factor (Btu/sqft day):	1,444.2395
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.0000
Daily Vapor Temperature Range (deg. R):	19.4475
Daily Vapor Pressure Range (psia):	0.0000
Breather Vent Press. Setting Range(psia):	150.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0217
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.0217
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.0217
Daily Avg. Liquid Surface Temp. (deg R):	527.6230
Daily Min. Liquid Surface Temp. (deg R):	517.8993
Daily Max. Liquid Surface Temp.(deg R):	537.3468
Daily Ambient Temp. Range (deg. R):	23.6917
Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.9943
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0217
Vapor Space Outage (ft):	5.0000
Working Losses (lb):	32.6407
Vapor Molecular Weight (lb/lb-mole):	139.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0217
Annual Net Throughput (gal/yr.):	454,500.0000
Annual Turnovers:	28.0642
Turnover Factor:	1.0000
Tank Diameter (ft):	10.0000
Working Loss Product Factor:	1.0000
Total Losses (lb):	32.6407

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

OPLC WORKTANK02 - Horizontal Tank
Broken Bow, Oklahoma

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Pentachlorophenol	17.43	0.00	17.43
Unidentified Components	4.54	0.00	4.54
Wood Treat Blend	32.64	0.00	32.64
Distillate fuel oil no. 2	10.68	0.00	10.68

TANKS 4.0.9d
Emissions Report - Detail Format
Total Emissions Summaries - All Tanks in Report

Emissions Report for: Annual

Tank Identification				Losses (lbs)
OPLC STRGTANK03	Oklahoma Pole & Lumber	Vertical Fixed Roof Tank	Broken Bow, Oklahoma	11.84
OPLC STRGTANK04	Oklahoma Pole & Lumber	Vertical Fixed Roof Tank	Broken Bow, Oklahoma	102.15
OPLC WORKTANK01	Oklahoma Pole & Lumber	Horizontal Tank	Broken Bow, Oklahoma	32.64
OPLC WORKTANK02	Oklahoma Pole & Lumber	Horizontal Tank	Broken Bow, Oklahoma	32.64
Total Emissions for all Tanks:				179.27

Oklahoma Pole & Lumber Company
Toxic Release Inventory Report
Fugitive Emissions Calculations
Reporting Year: 2011

Fugitive Emissions from Treatment Processes

Using AP-42 Chapter 10.8, Table 10.8-1

Emission Factor for Total VOC:	0.00074	lbs/ft^3 of treated wood
Total cubic feet of treated wood:	1,152,537.20	ft3
Total VOC Emissions from Process:	852.877528	lbs
Pentaclorophenol	57.19	lbs
n-Hexane	7.17	lbs
Naphthalene	3.94	lbs
1,2,4-Trimethylbenzene	7.17	lbs

Previous Year Total cubic feet of treated wood: 1100000

1.047761

OKLAHOMA POLE & LUMBER, INC
2973 RODEO RD
BROKEN BOW, OK 74728
580.236.0788

I attest that the information submitted is true and correct to the best of my knowledge,

Date

7-17-13
Certifying Official & Title

Oklahoma Pole & Lumber Company
Toxic Release Inventory Threshold Determinations
Reporting Year: 2012

Product Purchased	Density (lbs/gal)	Total gallons Purchased	Total lbs	Max on Site at One time (lbs)	Contains SARA 313 Chemical?
Diesel	7.3392	892268	6548533	292382	Yes
Dura-Treat 40 Wood Preserver	9.76	105000	1024800	92707	Yes

Notes:

1. Diesel is used in a mixture for wood preserving. Therefore, the diesel is "processed".
2. Dura-Treat contains 42% by weight pentachlorophenol and is used in a mixture with diesel for preserving of wood. Therefore, the material is "processed".
3. No new chemicals/chemical compounds are created as a result of blending.

Calculations:

Total lbs = density lbs/gal x gals/yr

Max on site (lbs) = maximum storage capacity gal x density lbs/gal

Attachment 5

Oklahoma Pole & Lumber Company
Toxic Release Inventory Threshold Determinations
Reporting Year: 2012

Dura-Treat Chemical	CAS	Wt%	De Minimus Limit (lbs)	Max lbs Processed	Threshold Reporting Qty (lbs)	Meets Threshold?	Max lbs on site[3]
Pentachlorophenol	87-86-5	42	0.1	430,416	25000	Yes	38937

Notes:

[1] De Minimus limit - if concentration of chemical in product is less than deminimis wt%, it does not have to be included in determination of threshold.

"*" means there is no de minimis limit. Therefore, everything must be included in determining reporting threshold.

[2] Material processed has reporting threshold of 25,000 lbs with exception of Mercury, which has a reporting threshold of 10 lbs.

[3] Max lbs on site determined by maximum volume of materials on site that contain chemical multiplied by the wt% of chemical.

Calculations:

Max lbs processed = Σ(total lbs/yr material x wt% of chemical if wt% is equal to or greater than de minimis wt%)
(If wt% is below de minimis level, it is not included in the total lbs processed.)

I certify that the above information is true and correct to the best of my knowledge.

Signature

7-17-13
Date

Rick Worley, President
Oklahoma Pole & Lumber Company
Broken Bow, Oklahoma

Oklahoma Pole & Lumber Company
Toxic Release Inventory Threshold Determinations
Reporting Year: 2012

Table 3-4 Estimated Concentration Values of EPCRA Section 313 Constituents in Crude Oil and Petroleum Products (Weight Percent) (EPA 745-B-00-002)

INGREDIENT NAME	CAS No.	De Minimus Limit[1] (wt%)	Diesel Fuel	Max lbs Processed	Threshold Reporting Qty[2] (lbs)	Meets Threshold for Reporting?	Max Wt on Site[3] (lbs)
Benzene	71-43-2	0.1	0.0008	0.000	25,000	No	2.34
Biphenyl	92-52-4	1	0.1	0.000	25,000	No	292.38
Ethyl benzene	100-41-4	0.1	0.013	0.000	25,000	No	38.01
n-Hexane	110-54-3	1	1	65485.3	25,000	Yes	2923.82
Naphthalene	91-20-3	0.1	0.55	36016.9	25,000	Yes	1608.10
Phenanthrene	85-01-8	1	0.125	0.000	25,000	No	365.48
Phenol	108-95-2	1	0.064	0.000	25,000	No	187.12
Styrene	100-42-5	0.1	0.032	0.000	25,000	No	93.56
Toluene	108-88-3	1	0.032	0.000	25,000	No	93.56
1,2,4- Trimethylbenzene	95-63-6	1	1	65485.3	25,000	Yes	2923.82
Xylene, mixed isomers	1330-20-7	1	0.29	0.000	25,000	No	847.91
Arsenic	7440-38-2	0.1	0.000009	0.000	25,000	No	0.02
Beryllium	7440-41-7	0.1	0.000005	0.000	25,000	No	0.01
Cadmium	7440-43-9	0.1	0.000021	0.000	25,000	No	0.06
Chromium	7440-47-3	1	0.000095	0.000	25,000	No	0.28
Copper	7440-50-8	1	0.00056	0.000	25,000	No	1.64
Manganese	7439-96-5	1	0.000021	0.000	25,000	No	0.06
Mercury	7439-97-6	*	0.00004	2.619	10	No	0.12
Nickel	7440-02-0	0.1	0.000338	0.000	25,000	No	0.99

Oklahoma Pole & Lumber
Toxic Release Inventory Sumamry
Reporting Year: 2012

Chemical	Fug Emissions lbs	Point Source Emissions lbs	Waste lbs	Required TRI Form
n-Hexane	126.23	0.36	8.65	A
Naphthalene	69.43	0.20	4.76	A
1,2,4- Trimethylbenzene	126.23	0.36	8.65	A
Pentachlorophenol	64.51	81.13	14.88	A

135
74
135

**Choosing to continue reporting on Form R for Pentachlorophenol.*

Oklahoma Pole & Lumber Company
Toxic Release Inventory Report
Releases in Waste
Reporting Year: **2012**

Waste Disposal:

Diesel/ pentachlorophenol/ water mixture	0	lbs to Clean Harbors Deer Park
Diesel/ pentachlorophenol/ water mixture	0	lbs to Clean Harbors El Dorado
Pentachlorophenol debris-solids	2921	lbs to Clean Harbors Deer Park
Pentachlorophenol debris-solids	5733	lbs to Clean Harbors El Dorado

Mixture Composition	wt%	Deer Park	El Dorado
Diesel	60.00%	0.00	0.00
Pentachlorophenol	10.00%	0.00	0.00

Debris-solids Chemical %	wt%	Deer Park	El Dorado
Diesel	10.00%	292.1	573.3
Pentachlorophenol	0.17%	5.02412	9.86076

Mixture Chemical	Max Wt%	Deer Park	El Dorado	Total to Waste
n-Hexane	1.00%	2.92	5.73	8.65
Naphthalene	0.55%	1.61	3.15	4.76
1,2,4- Trimethylbenzene	1.00%	2.92	5.73	8.65
Pentachlorophenol	100%	5.02	9.86	14.88

Disposal Facilities

Clean Harbors Deer Park Incineration Facility
2027 Independence Parkway South
Deer Park, Texas 77536
Harris County
TXD055141378

Clean Harbors El Dorado Incineration Facility
309 American Circle
El Dorado, Arkansas 71730
ARD069748192

Oklahoma Pole & Lumber
Releases to Air from Diesel and Pentachlorophenol
Loading into Drums for Disposal and Work Tanks
Reporting Year: 2012

INPUT PARAMETERS AND CONSTANTS

Parameter	Mixture	Diesel	Dura Treat
Molecular weight (lb/lb-mole)	200.5	188	266.32
Max Vapor Pressure (psia)	0.02167	0.022	0.0193368
Avg. Temp (Rankine)	560	560	560
Max Saturation factor	1.45	1.45	1.45
Gallons Loaded / yr	0	892,268	105,000
Diesel Wt%	84.03%	100.00%	0.00%
Dura-Treat Wt%	15.90%	0.00%	100.00%

Summary of VOC Emissions for Loading Operations

FIN	EPN	Max Emissions (lbs)
WASTELOAD	LOADINGFUG	0.0000
DIESELLOAD	LOADINGFUG	119.0622
PENTALOAD1	LOADINGFUG	17.4452

AP-42 Chapter 5.2 Equation 1 used for calculation of emissions.

Calculations:

Total lbs Uncontrolled VOC = 12.46 x M.W. x v.p. x saturation factor/ temp R x total gallons/1000

Pentachlorophenol

42% by Wt of Dura-Treat

FIN	EPN	Penta Emissions (lbs)
WASTELOAD1	LOADINGFUG	0.00
PENTALOAD1	LOADINGFUG	7.33

Waste lbs Fugitives = Wt% Penta in Dura-Treat x Wt% Dura-Treat in waste x lbs emissions

Penta loading lbs fugitives = Wt% Penta in Dura-Treat x lbs Penta Load emissions

Oklahoma Pole & Lumber
Releases to Air from Diesel and Pentachlorophenol
Loading into Drums for Disposal and Work Tanks
Reporting Year: 2012

Table 3-4 Estimated Concentration Values of EPCRA Section 313 Constituents in Crude Oil and Petroleum Products (Weight Percent) (EPA 745-B-00-002)

INGREDIENT NAME	CAS No.	Diesel Fuel	Waste Emissions (lbs)	Diesel Load Emissions (lbs)	Total Emissions (lbs)
Benzene	71-43-2	0.0008	0.00	0.10	0.10
Biphenyl	92-52-4	0.1	0.00	11.91	11.91
Ethyl benzene	100-41-4	0.013	0.00	1.55	1.55
n-Hexane	110-54-3	1	0.00	119.06	119.06
Naphthalene	91-20-3	0.55	0.00	65.48	65.48
Phenanthrene	85-01-8	0.125	0.00	14.88	14.88
Phenol	108-95-2	0.064	0.00	7.62	7.62
Styrene	100-42-5	0.032	0.00	3.81	3.81
Toluene	108-88-3	0.032	0.00	3.81	3.81
1,2,4- Trimethylbenzene	95-63-6	1	0.00	119.06	119.06
Xylene, mixed isomers	1330-20-7	0.29	0.00	34.53	34.53
Arsenic	7440-38-2	0.0000085	0.00	0.00	0.00
Beryllium	7440-41-7	0.000005	0.00	0.00	0.00
Cadmium	7440-43-9	0.000021	0.00	0.00	0.00
Chromium	7440-47-3	0.000095	0.00	0.01	0.01
Copper	7440-50-8	0.00056	0.00	0.07	0.07
Manganese	7439-96-5	0.000021	0.00	0.00	0.00
Mercury	7439-97-6	0.00004	0.00	0.00	0.00
Nickel	7440-02-0	0.000338	0.00	0.04	0.04

**Note that the concentrations of arsenic and chromium are considered de minimis.*
Fugitive lbs of Compound = total lbs emissions x Wt% of Diesel x Wt% of compound

Oklahoma Pole & Lumber Company
Toxic Release Inventory Report
Storage Tank Emissions Calculations
Reporting Year: 2012

FIN/EPN	FIN Description	Tank Type	Designated Tank Capacity (gals)	Ht / L (ft)	Dia (ft)	Through put (gals)	TANKS 4.09 Total lbs/yr	Diesel	n-Hexane	Naphthalene	1,2,4-Trimethylbenzene	Penta chloro phenol
WORKTANK01	Work Tank	HFR	17,490	30.0	10.0	498,634	35.81	11.71	0.1171	0.06441	0.1171	19.12
WORKTANK02	Work Tank	HFR	16,195	28.0	10.0	498,634	35.81	11.71	0.1171	0.06441	0.1171	19.12
STRGTANK03	Diesel Tank	VFR	10,364	13.0	12.0	892,268	12.16	12.16	0.1216	0.06688	0.1216	0
STRGTANK04	Dura Treat Tank	VFR	5,288	10.0	9.5	105,000	102.15	0	0	0	0	42.89
STRGTANK05	Emtpy	VFR	8,000	14.0	10.0	0	0	0	0	0	0	0
STRGTANK06	Emtpy	HFR	2,000	9.5	6.0	0	0	0	0	0	0	0
STRGTANK07	Emtpy	HFR	2,000	9.5	6.0	0	0	0	0	0	0	0
STRGTANK08	Emtpy	HFR	2,000	9.5	6.0	0	0	0	0	0	0	0
STRGTANK09	Emtpy	HFR	2,000	9.5	6.0	0	0	0	0	0	0	0
Total lbs all Tanks							**185.93**	**35.58**	**0.36**	**0.20**	**0.36**	**81.13**

Work Tanks represent the working losses for in AP-42 Chapter 10.8 Emission factor.

Work Tank Mixture ratio 7 gals Diesel to 1 gal Dura-Treat

Component	Density (lbs/gal)	LMW	VMW	VP
Diesel	7.3392	188	130	0.022
Dura-Treat	9.76	266.3	184	0.01934
Mixture	7.6418	200.5	138.62	0.02167

Pentachlorophenol weight % of Dura-Treat

Wt% Penta = (Dura-Treat lbs/gal x 85% Penta) / (diesel lbs/gal x gal/mix + Dura-Treat lbs/gal x gal/mix)

= 6.71% Mixture

Diesel Component	Max Wt% in diesel mixture
n-Hexane	1.00%
Naphthalene	0.55%
1,2,4-Trimethylbenzene	1.00%

Oklahoma Pole & Lumber Company
Toxic Release Inventory Threshold Determinations
Reporting Year: 2010

Product Purchased	Density (lbs/gal)	Total gallons Purchased	Total lbs	Max on Site at One time (lbs)	Contains SARA 313 Chemical?
Diesel	7.3392	724560	5317691	292382	Yes
Dura-Treat 40 Wood Preserver	9.76	95000	927200	92707	Yes

Notes:

1. Diesel is used in a mixture for wood preserving. Therefore, the diesel is "processed".
2. Dura-Treat contains 42% by weight pentachlorophenol and is used in a mixture with diesel for preserving of wood. Therefore, the material is "processed".
3. No new chemicals/chemical compounds are created as a result of blending.

Calculations:

Total lbs = density lbs/gal x gals/yr

Max on site (lbs) = maximum storage capacity gal x density lbs/gal

ATTACHMENT 16

Oklahoma Pole & Lumber Company
Toxic Release Inventory Threshold Determinations
Reporting Year: 2010

Table 3-4 Estimated Concentration Values of EPCRA Section 313 Constituents in Crude Oil and Petroleum Products (Weight Percent) (EPA 745-B-00-002)

INGREDIENT NAME	CAS No.	De Minimus Limit[1] (wt%)	Diesel Fuel	Max lbs Processed	Threshold Reporting Qty[2] (lbs)	Meets Threshold for Reporting?	Max Wt on Site[3] (lbs)
Benzene	71-43-2	0.1	0.0008	0.000	25,000	No	2.34
Biphenyl	92-52-4	1	0.1	0.000	25,000	No	292.38
Ethyl benzene	100-41-4	0.1	0.013	0.000	25,000	No	38.01
n-Hexane	110-54-3	1	1	53176.9	25,000	Yes	2923.82
Naphthalene	91-20-3	0.1	0.55	29247.3	25,000	Yes	1608.10
Phenanthrene	85-01-8	1	0.125	0.000	25,000	No	365.48
Phenol	108-95-2	1	0.064	0.000	25,000	No	187.12
Styrene	100-42-5	0.1	0.032	0.000	25,000	No	93.56
Toluene	108-88-3	1	0.032	0.000	25,000	No	93.56
1,2,4- Trimethylbenzene	95-63-6	1	1	53176.9	25,000	Yes	2923.82
Xylene, mixed isomers	1330-20-7	1	0.29	0.000	25,000	No	847.91
Arsenic	7440-38-2	0.1	8.5E-06	0.000	25,000	No	0.02
Beryllium	7440-41-7	0.1	0.000005	0.000	25,000	No	0.01
Cadmium	7440-43-9	0.1	0.000021	0.000	25,000	No	0.06
Chromium	7440-47-3	1	0.000095	0.000	25,000	No	0.28
Copper	7440-50-8	1	0.00056	0.000	25,000	No	1.64
Manganese	7439-96-5	1	0.000021	0.000	25,000	No	0.06
Mercury	7439-97-6	*	0.00004	2.127	10	No	0.12
Nickel	7440-02-0	0.1	0.000338	0.000	25,000	No	0.99

Oklahoma Pole & Lumber Company
Toxic Release Inventory Threshold Determinations
Reporting Year: 2010

Dura-Treat Chemical	CAS	Wt%	De Minimus Limit (lbs)	Max lbs Processed	Threshold Reporting Qty (lbs)	Meets Threshold?	Max lbs on site[3]
Pentachlorophenol	87-86-5	42	0.1	389,424	25000	Yes	38937

Notes:

[1] De Minimus limit - if concentration of chemical in product is less than deminimis wt%, it does not have to be included in determination of threshold.

"*" means there is no de minimis limit. Therefore, everything must be included in determining reporting threshold.

[2] Material processed has reporting threshold of 25,000 lbs with exception of Mercury, which has a reporting threshold of 10 lbs.

[3] Max lbs on site determined by maximum volume of materials on site that contain chemical multiplied by the wt% of chemical.

Calculations:

Max lbs processed = Σ(total lbs/yr material x wt% of chemical if wt% is equal to or greater than de minimis wt%)
(If wt% is below de minimis level, it is not included in the total lbs processed.)

I certify that the above information is true and correct to the best of my knowledge.

Rick Worley — 2-17-13

Signature — Date

Rick Worley, President
Oklahoma Pole & Lumber Company
Broken Bow, Oklahoma

Oklahoma Pole & Lumber Company
Toxic Release Inventory Threshold Determinations
Reporting Year: 2009

Product Purchased	Density (lbs/gal)	Total gallons Purchased	Total lbs	Max on Site at One time (lbs)	Contains SARA 313 Chemical?
Diesel	7.3392	669256	4911804	292382	Yes
Dura-Treat 40 Wood Preserver	9.76	85000	829600	92707	Yes

Notes:

1. Diesel is used in a mixture for wood preserving. Therefore, the diesel is "processed".
2. Dura-Treat contains 42% by weight pentachlorophenol and is used in a mixture with diesel for preserving of wood. Therefore, the material is "processed".
3. No new chemicals/chemical compounds are created as a result of blending.

Calculations:

Total lbs = density lbs/gal x gals/yr

Max on site (lbs) = maximum storage capacity gal x density lbs/gal

Attachment 17

Oklahoma Pole & Lumber Company
Toxic Release Inventory Threshold Determinations
Reporting Year: 2009

Table 3-4 Estimated Concentration Values of EPCRA Section 313 Constituents in Crude Oil and Petroleum Products (Weight Percent) (EPA 745-B-00-002)

INGREDIENT NAME	CAS No.	De Minimus Limit[1] (wt%)	Diesel Fuel	Max lbs Processed	Threshold Reporting Qty[2] (lbs)	Meets Threshold for Reporting?	Max Wt on Site[3] (lbs)
Benzene	71-43-2	0.1	0.0008	0.000	25,000	No	2.34
Biphenyl	92-52-4	1	0.1	0.000	25,000	No	292.38
Ethyl benzene	100-41-4	0.1	0.013	0.000	25,000	No	38.01
n-Hexane	110-54-3	1	1	49118.0	25,000	Yes	2923.82
Naphthalene	91-20-3	0.1	0.55	27014.9	25,000	Yes	1608.10
Phenanthrene	85-01-8	1	0.125	0.000	25,000	No	365.48
Phenol	108-95-2	1	0.064	0.000	25,000	No	187.12
Styrene	100-42-5	0.1	0.032	0.000	25,000	No	93.56
Toluene	108-88-3	1	0.032	0.000	25,000	No	93.56
1,2,4- Trimethylbenzene	95-63-6	1	1	49118.0	25,000	Yes	2923.82
Xylene, mixed isomers	1330-20-7	1	0.29	0.000	25,000	No	847.91
Arsenic	7440-38-2	0.1	8.5E-06	0.000	25,000	No	0.02
Beryllium	7440-41-7	0.1	0.000005	0.000	25,000	No	0.01
Cadmium	7440-43-9	0.1	0.000021	0.000	25,000	No	0.06
Chromium	7440-47-3	1	0.000095	0.000	25,000	No	0.28
Copper	7440-50-8	1	0.00056	0.000	25,000	No	1.64
Manganese	7439-96-5	1	0.000021	0.000	25,000	No	0.06
Mercury	7439-97-6	*	0.00004	1.965	10	No	0.12
Nickel	7440-02-0	0.1	0.000338	0.000	25,000	No	0.99

Oklahoma Pole & Lumber Company
Toxic Release Inventory Threshold Determinations
Reporting Year: 2009

Dura-Treat Chemical	CAS	Wt%	De Minimus Limit (lbs)	Max lbs Processed	Threshold Reporting Qty (lbs)	Meets Threshold?	Max lbs on site[3]
Pentachlorophenol	87-86-5	42	0.1	348,432	25000	Yes	38937

Notes:

[1] De Minimus limit - if concentration of chemical in product is less than deminimis wt%, it does not have to be included in determination of threshold.

"*" means there is no de minimis limit. Therefore, everything must be included in determining reporting threshold.

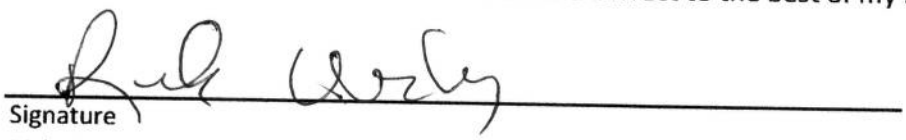
[2] Material processed has reporting threshold of 25,000 lbs with exception of Mercury, which has a reporting threshold of 10 lbs.

[3] Max lbs on site determined by maximum volume of materials on site that contain chemical multiplied by the wt% of chemical.

Calculations:

Max lbs processed = Σ(total lbs/yr material x wt% of chemical if wt% is equal to or greater than de minimis wt%)
(If wt% is below de minimis level, it is not included in the total lbs processed.)

I certify that the above information is true and correct to the best of my knowledge.



Signature

2-18-13
Date

Rick Worley, President
Oklahoma Pole & Lumber Company
Broken Bow, Oklahoma

Lesley Swift

From: Rick Worley [okpl@pine-net.com]
Sent: Wednesday, January 14, 2009 12:13 PM
To: lesley@kjenvironmental.com
Subject: Re: Tier II Reporting

Kevin
Here is the information for treating in 08.

Penta. 75,000 gal → $(75{,}000\ GAL) * \left(9.76 \frac{LB}{GAL}\right) = 732{,}000\ LB$
Diesel. 581,506 gal
Cubes. 760,915.7

9/26/2013

Rick

----- Original Message -----
From: Lesley Swift
To: okpl@pine-net.com
Sent: Monday, January 12, 2009 2:51 PM
Subject: Tier II Reporting

Good afternoon Rick,

KJ Environmental is starting to gather the information together to do your Tier II Reporting that's due 3/1/09. I need to get the quantities purchased for the following for the year 2008.

1. Pentachlorophenol
2. Diesel
3. Cubes

Thanks for all your help,

Lesley Swift

KJ Environmental Mgt., Inc.
616 N. Bell Ave
Denton, TX 76209
PH 940-387-0805
Fax 940-387-0830

Attachment 18

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	**DIESEL FUELS**
Version #	02
Issue date	11-09-2010
Revision date	11-04-2012
Supersedes date	08-11-2011
MSDS Number	102
Product use	Refinery feedstock.
Synonym(s)	Diesel Fuels All Grades, Diesel Fuel No.2, Fuel Oil No.2, High Sulfur Diesel Fuel, Low Sulfur Diesel Fuel, Ultra Low Sulfur Diesel Fuel, CARB (California Air Resource Board) Diesel Fuel, Off-Road Diesel Fuel, Dyed Diesel Fuel, X Grade Diesel Fuel, X-1 Diesel Fuel, R5 ULSD, B5 ULSD See section 16 for complete information.
Manufacturer/Supplier	Valero Marketing & Supply Company and Affiliates P.O. Box 696000 San Antonio, TX 78269-6000
General Assistance	210-345-4593
Emergency	24 Hour Emergency 866-565-5220 1-800-424-9300 (CHEMTREC USA)

2. Hazards Identification

Physical state	Liquid.
Appearance	Liquid (may be dyed red).
Emergency overview	WARNING! Combustible liquid and vapor. May be ignited by heat, sparks or flames. Heat may cause the containers to explode. Harmful if inhaled or swallowed. May be harmful if absorbed through skin. Aspiration may cause lung damage. Irritating to eyes, respiratory system and skin. In high concentrations, vapors and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea. Suspect cancer hazard - may cause cancer. Prolonged exposure may cause chronic effects. Diesel exhaust has been reported to be an occupational hazard due to NIOSH-reported potential carcinogenic properties. Hydrogen sulfide, a highly toxic gas, may be present or released. Signs and symptoms of overexposure to hydrogen sulfide include respiratory and eye irritation, dizziness, nausea, coughing, a sensation of dryness and pain in the nose, and loss of consciousness. Odor does not provide a reliable indicator of the presence of hazardous levels in the atmosphere. Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. The toxicological properties of this material have not been fully investigated. Static accumulating flammable materials can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite material and vapor may cause flash fire (or explosion).
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Eyes	Contact may irritate or burn eyes. Eye contact may result in corneal injury.
Skin	May be harmful if absorbed through skin. Irritating to skin. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Inhalation	Harmful if inhaled. Irritating to respiratory system. In high concentrations, vapors and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea. May cause breathing disorders and lung damage. May cause cancer by inhalation. Prolonged inhalation may be harmful.
Ingestion	Harmful if swallowed. Ingestion may result in vomiting; aspiration (breathing) of vomitus into lungs must be avoided as even small quantities may result in aspiration pneumonitis. Irritating to mouth, throat, and stomach.
Target organs	Blood. Eyes. Liver. Respiratory system. Skin. Kidneys. Central nervous system.

ATTACHMENT 19

Chronic effects Suspect cancer hazard - may cause cancer. Liver injury may occur. Kidney injury may occur. Exposure may cause lung cancer and also noted a positive association with an increased risk of bladder cancer. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Signs and symptoms Irritation of nose and throat. Irritation of eyes and mucous membranes. Skin irritation. Unconsciousness. Corneal damage. Narcosis. Decrease in motor functions. Behavioral changes. Edema. Liver enlargement. Jaundice. Conjunctivitis. Proteinuria. Defatting of the skin. Rash. The toxicological properties of this product have not been thoroughly investigated. Use appropriate precautions.

Potential environmental effects Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Fuels, diesel, no. 2	68476-34-6	85 - 100
Biodiesel - Fatty acid methyl esters	67762-38-3	0 - 10
n-Nonane	111-84-2	1 - 3
Octane (All isomers)	111-65-9	1 - 2
Hexane (Other isomers)	96-14-0	0 - 1
Naphthalene	91-20-3	0 - 1
n-Heptane	142-82-5	0 - 1
n-Hexane	110-54-3	0 - 1

4. First Aid Measures

First aid procedures

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.

Skin contact Remove contaminated clothing and shoes. Wash off immediately with soap and plenty of water. Get medical attention if irritation develops or persists. Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes. If high pressure injection under the skin occurs, always seek medical attention.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Ingestion Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. Do not give mouth-to-mouth resuscitation. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Get medical attention immediately.

Notes to physician In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed. The toxicological properties of this material have not been fully investigated.

General advice If exposed or concerned: get medical attention/advice. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use.

5. Fire Fighting Measures

Flammable properties Combustible liquid and vapor. Containers may explode when heated.

Extinguishing media

Suitable extinguishing media Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Protection of firefighters

Protective equipment and precautions for firefighters Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Fire fighting equipment/instructions	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Move containers from fire area if you can do it without risk. In the event of fire, cool tanks with water spray. Cool containers exposed to flames with water until well after the fire is out. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Water runoff can cause environmental damage. Use compatible foam to minimize vapor generation as needed.
Specific methods	In the event of fire and/or explosion do not breathe fumes.
Hazardous combustion products	Carbon monoxide. Carbon Dioxide. Sulfur oxides. Nitrogen oxides (NOx). Hydrocarbons. Hydrogen sulfide.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Local authorities should be advised if significant spills cannot be contained. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. See Section 8 of the MSDS for Personal Protective Equipment.
Environmental precautions	If facility or operation has an "oil or hazardous substance contingency plan", activate its procedures. Stay upwind and away from spill. Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not enter or stay in area unless monitoring indicates that it is safe to do so. Isolate hazard area and restrict entry to emergency crew. Flammable. Review Firefighting Measures, Section 5, before proceeding with clean up. Keep all sources of ignition (flames, smoking, flares, etc.) and hot surfaces away from release. Contain spill in smallest possible area. Recover as much product as possible (e.g. by vacuuming). Stop leak if it can be done without risk. Use water spray to disperse vapors. Use compatible foam to minimize vapor generation as needed. Spilled material may be absorbed by an appropriate absorbent, and then handled in accordance with environmental regulations. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment or drainage systems and natural waterways. Contact fire authorities and appropriate federal, state and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, contact the National Response Center at 1-800-424-8802. For highway or railways spills, contact Chemtrec at 1-800-424-9300.
Methods for containment	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Local authorities should be advised if significant spillages cannot be contained. Stop leak if you can do so without risk. This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Use non-sparking tools and explosion-proof equipment. Small Spills: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. This material and its container must be disposed of as hazardous waste. Large Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Do not allow material to contaminate ground water system. Should not be released into the environment.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Avoid prolonged exposure. Use only with adequate ventilation. Wash thoroughly after handling. The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. When using, do not eat, drink or smoke. Avoid release to the environment.
Storage	Flammable liquid storage. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. The pressure in sealed containers can increase under the influence of heat. Keep container tightly closed in a cool, well-ventilated place. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Fuels, diesel, no. 2 (CAS 68476-34-6)	TWA	100 mg/m3	Inhalable fraction and vapor.
Hexane (Other isomers) (CAS 96-14-0)	STEL	1000 ppm	
Naphthalene (CAS 91-20-3)	TWA	500 ppm	
	STEL	15 ppm	
n-Heptane (CAS 142-82-5)	TWA	10 ppm	
	STEL	500 ppm	
n-Hexane (CAS 110-54-3)	TWA	400 ppm	
n-Nonane (CAS 111-84-2)	TWA	50 ppm	
Octane (All isomers) (CAS 111-65-9)	TWA	200 ppm	
		300 ppm	

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Naphthalene (CAS 91-20-3)	PEL	50 mg/m3
		10 ppm
n-Heptane (CAS 142-82-5)	PEL	2000 mg/m3
		500 ppm
n-Hexane (CAS 110-54-3)	PEL	1800 mg/m3
		500 ppm
Octane (All isomers) (CAS 111-65-9)	PEL	2350 mg/m3
		500 ppm

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Fuels, diesel, no. 2 (CAS 68476-34-6)	TWA	100 mg/m3
Hexane (Other isomers) (CAS 96-14-0)	STEL	3500 mg/m3
		1000 ppm
	TWA	1760 mg/m3
		500 ppm
Naphthalene (CAS 91-20-3)	STEL	79 mg/m3
		15 ppm
	TWA	52 mg/m3
		10 ppm
n-Heptane (CAS 142-82-5)	STEL	2050 mg/m3
		500 ppm
	TWA	1640 mg/m3
		400 ppm
n-Hexane (CAS 110-54-3)	TWA	176 mg/m3
		50 ppm
n-Nonane (CAS 111-84-2)	TWA	1050 mg/m3
		200 ppm
Octane (All isomers) (CAS 111-65-9)	TWA	1400 mg/m3
		300 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Fuels, diesel, no. 2 (CAS 68476-34-6)	TWA	100 mg/m3	Vapor and aerosol.

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Hexane (Other isomers) (CAS 96-14-0)	TWA	200 ppm	
Naphthalene (CAS 91-20-3)	STEL	15 ppm	
	TWA	10 ppm	
n-Heptane (CAS 142-82-5)	STEL	500 ppm	
	TWA	400 ppm	
n-Hexane (CAS 110-54-3)	TWA	20 ppm	
n-Nonane (CAS 111-84-2)	TWA	200 ppm	
Octane (All isomers) (CAS 111-65-9)	TWA	300 ppm	

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Fuels, diesel, no. 2 (CAS 68476-34-6)	TWA	100 mg/m3	Inhalable fraction and vapor.
Hexane (Other isomers) (CAS 96-14-0)	STEL	1000 ppm	
	TWA	500 ppm	
Naphthalene (CAS 91-20-3)	STEL	15 ppm	
	TWA	10 ppm	
n-Heptane (CAS 142-82-5)	STEL	500 ppm	
	TWA	400 ppm	
n-Hexane (CAS 110-54-3)	TWA	50 ppm	
n-Nonane (CAS 111-84-2)	TWA	200 ppm	
Octane (All isomers) (CAS 111-65-9)	TWA	300 ppm	

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
Hexane (Other isomers) (CAS 96-14-0)	STEL	3500 mg/m3
		1000 ppm
	TWA	1760 mg/m3
		500 ppm
Naphthalene (CAS 91-20-3)	STEL	79 mg/m3
		15 ppm
	TWA	52 mg/m3
		10 ppm
n-Heptane (CAS 142-82-5)	STEL	2050 mg/m3
		500 ppm
	TWA	1640 mg/m3
		400 ppm
n-Hexane (CAS 110-54-3)	TWA	176 mg/m3
		50 ppm
n-Nonane (CAS 111-84-2)	TWA	1050 mg/m3
		200 ppm
Octane (All isomers) (CAS 111-65-9)	STEL	1750 mg/m3
		375 ppm
	TWA	1400 mg/m3
		300 ppm

Mexico. Occupational Exposure Limit Values

Components	Type	Value
Hexane (Other isomers) (CAS 96-14-0)	STEL	3500 mg/m3
		1000 ppm
	TWA	1760 mg/m3

Mexico. Occupational Exposure Limit Values

Components	Type	Value
Naphthalene (CAS 91-20-3)	STEL	500 ppm 75 mg/m3
	TWA	15 ppm 50 mg/m3
n-Heptane (CAS 142-82-5)	STEL	10 ppm 2000 mg/m3
	TWA	500 ppm 1600 mg/m3
n-Hexane (CAS 110-54-3)	TWA	400 ppm 176 mg/m3
n-Nonane (CAS 111-84-2)	STEL	50 ppm 1300 mg/m3
	TWA	250 ppm 1050 mg/m3
Octane (All isomers) (CAS 111-65-9)	STEL	200 ppm 1800 mg/m3
	TWA	375 ppm 1450 mg/m3 300 ppm

Engineering controls Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment.

Personal protective equipment

Eye / face protection Wear safety glasses. If splash potential exists, wear full face shield or chemical goggles.

Skin protection Wear chemical-resistant, impervious gloves. Full body suit and boots are recommended when handling large volumes or in emergency situations. Flame retardant protective clothing is recommended.

Respiratory protection Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workplace exposure limits for product or components are exceeded, NIOSH approved equipment should be worn. Proper respirator selection should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors. This equipment should be available for nonroutine and emergency use.

General hygiene considerations Consult supervisor for special handling instructions. Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. Wash hands before breaks and immediately after handling the product. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance Liquid (may be dyed red).

Physical state Liquid.

Form Liquid.

Color Clear. Straw.

Odor Kerosene (strong).

Odor threshold Not available.

pH Not available.

Vapor pressure < 1 mm Hg (20°C)

Vapor density 3 (Air = 1)

Boiling point 325 - 700 °F (162.78 - 371.11 °C)

Melting point/Freezing point -60.1 °F (-51.15 °C) Estimated

Solubility (water) Not available.

Specific gravity 0.82 - 0.87 (60°F)

Flash point	> 100 °F (> 37.8 °C) Closed Cup
Flammability limits in air, upper, % by volume	8 %
Flammability limits in air, lower, % by volume	0.4 %
Auto-ignition temperature	494.96 °F (257.2 °C)
Evaporation rate	0.02
Viscosity	2 - 4.5 mm²/s
Other data	
Flash point class	Combustible II

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under normal temperature conditions and recommended use.
Conditions to avoid	Heat, flames and sparks. Ignition sources. Contact with incompatible materials. Do not pressurize, cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides. Sulfur oxides. Nitrogen oxides (NOx). Hydrocarbons. Hydrogen sulfide.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
Naphthalene (CAS 91-20-3)		
Acute		
Dermal		
LD50	Rabbit	> 2 g/kg
Oral		
LD50	Rat	490 mg/kg
n-Heptane (CAS 142-82-5)		
Acute		
Inhalation		
LC50	Rat	103 mg/l, 4 Hours
n-Nonane (CAS 111-84-2)		
Acute		
Inhalation		
LC50	Rat	3200 mg/l, 4 Hours
Octane (All isomers) (CAS 111-65-9)		
Acute		
Inhalation		
LC50	Rat	118 mg/l, 4 Hours

Sensitization	This substance may have a potential for sensitization which may provoke an allergic reaction among sensitive individuals.
Acute effects	Harmful if inhaled, absorbed through skin, or swallowed. Harmful: may cause lung damage if swallowed. Irritating to eyes, respiratory system and skin. In high concentrations, vapors and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea. Hydrogen sulfide, a highly toxic gas, may be present. Signs and symptoms of overexposure to hydrogen sulfide include respiratory and eye irritation, dizziness, nausea, coughing, a sensation of dryness and pain in the nose, and loss of consciousness. Odor does not provide a reliable indicator of the presence of hazardous levels in the atmosphere. The toxicological properties of this material have not been fully investigated.

Local effects

US. ACGIH Threshold Limit Values

Fuels, diesel, no. 2 (CAS 68476-34-6)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.
n-Hexane (CAS 110-54-3)	Can be absorbed through the skin.

Chronic effects Contains organic solvents which in case of overexposure may depress the central nervous system causing dizziness and intoxication. Repeated exposure to naphthalene may cause cataracts, allergic skin rashes, destruction of red blood cells, and anemia, jaundice, kidney and liver damage. Danger of serious damage to health by prolonged exposure. Prolonged or repeated overexposure may cause central nervous system, kidney, liver, and lung damage.

Subchronic effects Liver and kidney damage may occur after prolonged and repeated exposure.

Carcinogenicity International Agency for Research on Cancer (IARC): Whole diesel engine exhaust – IARC Group 1. Exposure may cause lung cancer and also noted a positive association with an increased risk of bladder cancer.
Diesel exhaust has been reported to be an occupational hazard due to NIOSH-reported potential carcinogenic properties.

ACGIH Carcinogens

Fuels, diesel, no. 2 (CAS 68476-34-6)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Naphthalene (CAS 91-20-3)	A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Fuels, diesel, no. 2 (CAS 68476-34-6)	3 Not classifiable as to carcinogenicity to humans.
Naphthalene (CAS 91-20-3)	2B Possibly carcinogenic to humans.

US NTP Report on Carcinogens: Anticipated carcinogen

Naphthalene (CAS 91-20-3)	Reasonably Anticipated to be a Human Carcinogen.

Epidemiology Studies have shown a risk of spontaneous abortions in women exposed to high concentrations of organic solvents during pregnancy. Pre-existing skin conditions including dermatitis might be aggravated by exposure to this product.

Mutagenicity No component of this product present at levels greater than or equal to 0.1% is identified as a mutagen by OSHA.

Neurological effects Chronic exposure to high concentrations of various hydrocarbon blends may lead to polyneuropathy (peripheral nerve damage), characterized by progressive weakness and numbness in the extremities, loss of deep tendon reflexes and reduction of motor nerve conduction velocity. Numerous cases of polyneuritis have been reported following prolonged exposures to a petroleum fraction containing various isomers of heptane as major ingredients. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue) and/or damage.

Reproductive effects Napthalene interferes with embryo development in experimental animals at dose levels that cause maternal toxicity. In humans, excessive exposure to this agent may cause hemolytic anemia in the mother and fetus.

Teratogenicity The components of this product are not reported to cause teratogenic effects in humans. Based on best current information, there is no known teratogenicity associated with this product.

Further information Symptoms may be delayed. Toxicological properties of this material have not been fully investigated.

12. Ecological Information

Ecotoxicological data

Components		Species	Test Results
Naphthalene (CAS 91-20-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.09 - 3.4 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.91 - 2.82 mg/l, 96 hours
n-Hexane (CAS 110-54-3)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2.101 - 2.981 mg/l, 96 hours

Ecotoxicity Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Aquatic toxicity Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Persistence and degradability	Not available.
Bioaccumulation / Accumulation	Not available.
Partition coefficient	
Hexane (Other isomers)	3.6
n-Hexane	3.9
n-Heptane	4.66
Octane (All isomers)	5.18
n-Nonane	5.46
Mobility in environmental media	No data available.

13. Disposal Considerations

Waste codes	D001: Waste Flammable material with a flash point <140 °F
Disposal instructions	Dispose in accordance with all applicable regulations. Dispose of this material and its container to hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.

14. Transport Information

DOT

Basic shipping requirements:	
UN number	UN1202
Proper shipping name	Diesel fuel, MARINE POLLUTANT
Hazard class	Combustible Liquid
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Additional information:	
Special provisions	144, B1, IB3, T2, TP1
Packaging exceptions	150
Packaging non bulk	203
Packaging bulk	242

IATA

UN number	UN1202
UN proper shipping name	Gas oil
Transport hazard class(es)	3
Packing group	III
Environmental hazards	Yes
ERG code	3L

IMDG

UN number	UN1202
UN proper shipping name	DIESEL FUEL, MARINE POLLUTANT
Transport hazard class(es)	3
Packing group	III
Environmental hazards	
Marine pollutant	Yes
EmS	F-E, S-E

TDG

Proper shipping name	DIESEL FUEL, MARINE POLLUTANT
Hazard class	Combustible Liquid
UN number	UN1202
Packing group	III
Marine pollutant	Yes
Special provisions	82, 88

15. Regulatory Information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

n-Nonane (CAS 111-84-2)	1.0 % One-Time Export Notification only.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Naphthalene (CAS 91-20-3)
n-Hexane (CAS 110-54-3)

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Naphthalene (CAS 91-20-3)	0.1 %
n-Hexane (CAS 110-54-3)	1.0 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Naphthalene (CAS 91-20-3)	Listed.
n-Hexane (CAS 110-54-3)	Listed.

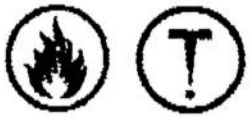
CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

n-Nonane: 100
Octane (All isomers): 100
Hexane (Other isomers): 100
Naphthalene: 100
n-Hexane: 5000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
Section 302 extremely hazardous substance (40 CFR 355, Appendix A)	No
Section 311/312 (40 CFR 370)	Yes
Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)	Not controlled
WHMIS status	Controlled
WHMIS classification	B3 - Combustible Liquids D2A - Other Toxic Effects-VERY TOXIC D2B - Other Toxic Effects-TOXIC

WHMIS labeling



Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

State regulations

US - California Hazardous Substances (Director's): Listed substance

Hexane (Other isomers) (CAS 96-14-0)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
n-Heptane (CAS 142-82-5)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
n-Nonane (CAS 111-84-2)	Listed.
Octane (All isomers) (CAS 111-65-9)	Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Benzene (CAS 71-43-2)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzene (CAS 71-43-2)	Listed: February 27, 1987 Carcinogenic.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Benzene (CAS 71-43-2)	Listed: December 26, 1997 Developmental toxin.
Toluene (CAS 108-88-3)	Listed: January 1, 1991 Developmental toxin.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

Toluene (CAS 108-88-3)	Listed: August 7, 2009 Female reproductive toxin.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

Benzene (CAS 71-43-2)	Listed: December 26, 1997 Male reproductive toxin.

US - New Jersey RTK - Substances: Listed substance

Naphthalene (CAS 91-20-3)	Listed.
n-Heptane (CAS 142-82-5)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
n-Nonane (CAS 111-84-2)	Listed.
Octane (All isomers) (CAS 111-65-9)	Listed.

US. Massachusetts RTK - Substance List

Hexane (Other isomers) (CAS 96-14-0)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
n-Heptane (CAS 142-82-5)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
n-Nonane (CAS 111-84-2)	Listed.
Octane (All isomers) (CAS 111-65-9)	Listed.

US. New Jersey Worker and Community Right-to-Know Act

Fuels, diesel, no. 2 (CAS 68476-34-6)	10000 LBS
Naphthalene (CAS 91-20-3)	500 LBS
n-Hexane (CAS 110-54-3)	500 LBS

US. Pennsylvania RTK - Hazardous Substances

Fuels, diesel, no. 2 (CAS 68476-34-6)	Listed.
Hexane (Other isomers) (CAS 96-14-0)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
n-Heptane (CAS 142-82-5).	Listed.
n-Hexane (CAS 110-54-3)	Listed.
n-Nonane (CAS 111-84-2)	Listed.
Octane (All isomers) (CAS 111-65-9)	Listed.

16. Other Information

Further Information HMIS® is a registered trade and service mark of the NPCA.

Other information Note: This Material Safety Data Sheet applies to the listed products and synonym descriptions for Hazard Communication purposes only. Technical Specifications vary greatly depending on the products and are not reflected in this document. Consult specification sheets for technical information.

HMIS® ratings
Health: 2*
Flammability: 2
Physical hazard: 0

NFPA ratings

Health: 2
Flammability: 2
Instability: 0

Disclaimer

This Material Safety Data Sheet (MSDS) was prepared in accordance with 29 CFR 1910.1200 by Valero Marketing & Supply Co., ("VALERO"). VALERO does not assume any liability arising out of product use by others. The information, recommendations, and suggestions presented in this MSDS are based upon test results and data believed to be reliable. The end user of the product has the responsibility for evaluating the adequacy of the data under the conditions of use, determining the safety, toxicity and suitability of the product under these conditions, and obtaining additional or clarifying information where uncertainty exists. No guarantee expressed or implied is made as to the effects of such use , the results to be obtained, or the safety and toxicity of the product in any specific application. Furthermore, the information herein is not represented as absolutely complete, since it is not practicable to provide all the scientific and study information in the format of this document, plus additional information may be necessary under exceptional conditions of use, or because of applicable laws or government regulations.

FORM 279 (6/08)

MAGELLAN PIPELINE COMPANY, L.P.

A SUBSIDIARY OF MAGELLAN MIDSTREAM PARTNERS, L.P.
P.O. BOX 22186
TULSA, OKLAHOMA 74121-2186

TERMINAL ADDRESS:
1503 W. Ferguson
Mt. Pleasant, TX 75455
Location #368

DOT FIRST RESPONDER INFORMATION	GROSS VOL	MEAS.
NA1993, DIESEL FUEL, 3, PGIII	7500	GAL
ONE CARGO TANK		
EMERGENCY CONTACT NUMBER: 800-451-8346 3E for Magellan		

SHIPPING PAPER INFORMATION

TRANSACTION # 7016

This vessel contains the following petroleum, liquified petroleum, or fertilizer products. Product summary, at the left, is substantiated by specific product component information shown on the attached bill of lading, without respect to supplier or the product owner.

BILL OF LADING

BILL OF LADING # 39079 PAGE: 1 of 1 DATE: 07/12/2013 09:38

SUPPLIER: 0410 PHILLIPS 66
600 NORTH DAIRY ASHFORD
HOUSTON, TX 77079
EPA# 4528
STATE ID# P20

CONSIGNEE: 000118 FROST OIL CO
DESTINATION: FROST OIL CO VARIOUS OKLAHOMA
VARIOUS, OK 74003

LOADING CONTROL/PETROEX: 433003

CARRIER: SHARROCK TRUCKING BROKEN BOW OK

DRIVER I.D. 23617 RAY WILLIAMS VTC: 7

Received, subject to the classification and tariffs in effect on the date of issuance of this bill of lading, the property described hereon, consigned and destined as shown, which it is agreed will be carried to consignee's place of storage at said destination, if on carrier's own highway route or routes or within the territory of its highway operations; otherwise to deliver to another carrier on the route to said destination. It is mutually agreed that every service to be performed hereunder shall be subject to all the conditions, not prohibited by law herein contained, and all applicable conditions prescribed for uniform straight bill of lading in National Motor Freight Classification No. A-13, MF-I.C.C. No. NMF 100 supplements thereto or reissued thereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

GRADE	RECIPE INFORMATION	GRS	NET	ADD/BLEND	MEAS	GRAVITY	TEMP/PSI	MTR	OCTANE
XD	DYED ULTRA LOW SULFUR #2 DIESEL NONTAXABLE USE ONLY, PENALTY FOR TAXABLE USE DYED 15 PPM SULFUR (MAX) ULSD FOR USE IN OFF-ROAD DIESEL ENGINES. NOT FOR HIGHWAY VEH/ENG EXCEPT FOR TAX-EXEMPT USE IN ACCORDANCE W/SEC. 4082 (IRC)	3000	2970	0 N	GAL	37.2	81.1	13	.0
XD	DYED ULTRA LOW SULFUR #2 DIESEL NONTAXABLE USE ONLY, PENALTY FOR TAXABLE USE DYED 15 PPM SULFUR (MAX) ULSD FOR USE IN OFF-ROAD DIESEL ENGINES. NOT FOR HIGHWAY VEH/ENG EXCEPT FOR TAX-EXEMPT USE IN ACCORDANCE W/SEC. 4082 (IRC)	1000	990	0 N	GAL	37.2	81.2	13	.0
XD	DYED ULTRA LOW SULFUR #2 DIESEL NONTAXABLE USE ONLY, PENALTY FOR TAXABLE USE DYED 15 PPM SULFUR (MAX) ULSD FOR USE IN OFF-ROAD DIESEL ENGINES. NOT FOR HIGHWAY VEH/ENG EXCEPT FOR TAX-EXEMPT USE IN ACCORDANCE W/SEC. 4082 (IRC)	3500	3462	0 N	GAL	37.2	83.0	14	.0
	----------PRODUCT TOTALS (PRD=GROSS,NET)----------								
	XD = 7500, 7422								

CARRIER CERTIFIES that the CARGO TANK supplied for this shipment is a proper container for the transportation of this commodity. By signing below, I acknowledge that if I have been injured while on terminal premises, I have notified Magellan Pipeline personnel of this fact prior to leaving the terminal. I also acknowledge that I was provided a copy of the appropriate Emergency Response Guide(s) with this Bill of Lading.

SEALS	ICC PERMIT	STATE LICENSE	STATE PERMIT	UNIT	UNIT CAPACITY	DISTRIBUTOR/LICENSE NUMBER

GASOLINE WITH AN "O" SUFFIX IN THE ADD/BLEND COLUMN IS E10: CONTAINS BETWEEN 9 AND 10 VOL% ETHANOL. GASOLINE WITH A "S" SUFFIX IN ADD/BLEND COLUMN IS E7.8 - CONTAINS UP TO 7.8% ETHANOL. GASOLINE WITH A "G" IN THE ADD/BLEND COLUMN CONTAINS GREATER THAN 10% ETHANOL BLEND. DO NOT BLEND THESE FUELS WITH ETHANOL OR WITH ANY OTHER OXYGENATE.
GASOLINE WITH A "B" OR "N" SUFFIX IN THE ADD/BLEND COLUMN IS E0: CONTAINS NO ETHANOL.
CONTACT THE INVENTORY OWNER AND/OR SUPPLIER OF THIS PRODUCT TO DETERMINE IF IT HAS BEEN RESTRICTED FROM USE IN ANY PRODUCT MARKETED AS E15.

TXLED PRODUCER REGISTRATION NUMBER P68.
MAGELLAN PIPELINE COMPANY, P.O. BOX 22186, TULSA, OK 74121-2186. EPA #4026
ENTITY-FACILITY ID 4026-80500

DRIVER SIGNATURE

Example 6: Concentration Ranges Straddling the *De Minimis* Value

Scenario 1: A facility processes 8,000,000 pounds of a mixture containing 0.25 to 1.25 percent manganese. Manganese is eligible for the *de minimis* exemption at concentrations up to 1 percent. The amount of mixture subject to reporting is the quantity containing manganese at or above the *de minimis* concentration:

$$[(8{,}000{,}000) \times (1.25\% - 0.99\%)] \div (1.25\% - 0.25\%)$$

The average concentration of manganese that is not exempt (above the *de minimis*) is:

$$(1.25\% + 1.00\%) \div (2)$$

Therefore, the amount of manganese that is subject to threshold determination and release and other waste management estimates is:

$$\left[\frac{(8{,}000{,}000)\times(1.25\% - 0.99\%)}{(1.25\% - 0.25\%)}\right] \times \left[\frac{(1.25\% + 1.00\%)}{(2)}\right] = 23{,}400\,pounds$$

= 23,400 pounds manganese (which is below the processing threshold for manganese)

In this scenario, because the facility's information pertaining to manganese was available to two decimal places, 0.99 was used to determine the amount below the *de minimis* concentrations. If the information was available to one decimal place, 0.9 should be used, as in the scenario below.

Scenario 2: As in the previous example, manganese is present in a mixture, of which 8,000,000 pounds is processed. The MSDS states the mixture contains 0.2 percent to 1.2 percent manganese. The amount of mixture subject to reporting (at or above *de minimis* limit) is:

$$[(8{,}000{,}000) \times (1.2\% - 0.9\%)] \div (1.2\% - 0.2\%)$$

The average concentration of manganese that is not exempt (at or above *de minimis* limit) is:

$$(1.2\% + 1.0\%) \div (2)$$

Therefore, the amount of manganese that is subject to threshold determinations and release and other waste management estimates is:

$$\left[\frac{(8{,}000{,}000)\times(1.2\% - 0.9\%)}{(1.2\% - 0.2\%)}\right] \times \left[\frac{(1.2\% + 1.0\%)}{(2)}\right] = 26{,}400\,pounds$$

= 26,400 pounds manganese (which is above the processing threshold for manganese)

ATTACHMENT 2D

EPA 260-R-13-001
February 2013

Toxic Chemical Release Inventory Reporting Forms and Instructions

Revised 2012 Version

Section 313 of the Emergency Planning and Community Right-to-Know Act

(Title III of the Superfund Amendments and Reauthorization Act of 1986)

http://www.epa.gov/pesticides/factsheets/chemicals/pentachlorophenol.htm
Last updated on Wednesday, May 09, 2012

Pesticides: Topical & Chemical Fact Sheets

Preliminary Risk Assessment Pentachlorophenol ("Penta"), HCB and Dioxin: Questions and Answers

Current as of April, 2007

Resources

- Pentachlorophenol Reregistration
- Other wood preservatives

ATTACHMENT 21

1. What did EPA release?

As part of the six-phase public participation process, EPA did released the Preliminary Risk Assessments (PRAs) for hexachlorobenzene (HCB) and dioxins/furans (CDDs/CDFs), contaminants of pentachlorophenol, for public comment on March 30, 2005. The Preliminary Risk Assessment (PRA) for pentachlorophenol (PCP, or "penta") was released for public comment on November 30, 2004 (closed January 31, 2005). This first preliminary risk assessment only included pentachlorophenol.

The subsequent preliminary assessments focused specifically on potential risks to workers as well as potential ecological and environmental risks from exposure to pentachlorophenol contaminants, HCB and dioxin. The assessments are a cooperative re-evaluation between the U.S. EPA and Health Canada's Pest Management Regulatory Agency (PMRA) under NAFTA. The Federal Register Notice started the 60-day public comment period for the PRAs. The comment period closes on May 31, 2005. The preliminary risk assessments are included in EPA's Docket Number OPP 2004-0402. Also available at this docket site are the first PRA for penta and the comments EPA received. These preliminary risk assessments were developed as part of EPA's process for making reregistration eligibility decisions.

2. What is pentachlorophenol and what are its uses?

Pentachlorophenol (PCP) was one of the most widely used biocides in the U.S. prior to regulatory actions to cancel and restrict certain non-wood preservative uses of

pentachlorophenol in 1987. It now has no registered residential uses. Its commercial uses include: utility poles, fences, shingles, walkways, building components, piers, docks and porches, and flooring and laminated beams. Additionally, there are agricultural uses (which are sometimes referred to as "outdoor residential"), i.e., wood protection treatment to buildings/products, and fencerows/hedgerows. Prior to 1987, pentachlorophenol was registered for use as a herbicide, defoliant, mossicide, and as a disinfectant, but now all these uses are cancelled.

The Agency has received and granted requests from the registrants of pesticide products containing pentachlorophenol to terminate certain uses of their products. All non-pressure and non-thermal treatment uses (i.e., spray uses) will be deleted from the registrants' labels. Spray uses for these products were also deleted, effective December 31, 2004. This action leaves only pressure and thermal treatments of pentachlorophenol. The non-pressure/non-thermal treatments in general lead to higher applicator exposures than other uses. In other words, you are not allowed to spray pentachlorophenol, and only pressure and thermal (heat) treatment uses are allowed.

In Canada, pentachlorophenol is used primarily to treat wood poles, piles, bridge timbers, exterior laminated timbers, bridge decking, and fence posts.

3. What were the exposure scenarios included in these preliminary risk assessments?

The occupational exposure chapter addresses potential exposures and risks of hexachlorobenzene (HCB) and dioxins/furans (CDDs/CDFs), contaminants of pentachlorophenol, to humans who may be exposed in "occupational settings" including: (1) handlers (mixers, loaders, applicators); and (2) individuals who are exposed through postapplication activities. The occupational settings are characterized as wood treatment plants where wood is pressure treated. Therefore, representative occupational handler exposure scenarios focused on treatment plant workers because of their higher exposure to pentachlorophenol. Potential postapplication exposures also may occur in occupational settings such as wood pressure treatment plants where treated lumber is handled for QA/QC testing, or storage/transport, or in commercial or institutional outdoor settings where the wood is fabricated into structures and professionally installed.

The ecological risk chapters discuss environmental exposures and risks to aquatic and terrestrial wildlife. The terrestrial assessment considered exposure via food items from soil contaminated with HCB and dioxins/furans leached from structures made from pentachlorophenol-treated wood. The aquatic assessment considered on exposure to HCB and dioxins/furans leached into the surrounding water from pentachlorophenol-treated wood. Exposure estimates were compared to available toxicity endpoints for various organisms in order to estimate risks.

4. What are the findings of the preliminary risk assessments?

Because these are preliminary assessments, it is premature for EPA to reach conclusions about the potential risks from exposure to HCB and dioxins/furans resulting from the use of pentachlorophenol. While EPA has identified some potential risks of concern, the risk estimates provided in this assessment are of a preliminary nature and subject to refinement. The process that EPA uses to review chemicals through reregistration is intended to gather additional information and input from the public and stakeholders about exposure and risk that will be used to revise the risk estimates. Based on such input through this public

comment period, EPA will develop a revised risk assessment and will be able to determine whether or not risk mitigation measures are needed. Consequently, the potential risks discussed in the preliminary risk assessment may change after the Agency has received and evaluated public comment received during the comment period. See EPA docket OPP-2004-0402 for the complete preliminary risk assessments.

5. What special precautions are appropriate for handlers?

General precautions for handling treated wood include always washing hands thoroughly after contacting treated wood, especially prior to eating and drinking, and ensuring that food does not come into direct contact with any treated wood. Workers should follow these recommendations: wear gloves when handling wood, wear goggles and dust-masks when sawing and sanding, and never burn treated wood.

6. Were potential risks to children included in these preliminary risk assessments?

EPA looked into this question and determined that exposure scenarios for children are highly unlikely, and therefore an assessment was not needed.

7. Where is pentachlorophenol in the reregistration eligibility decision (RED) process?

The wood preservatives containing pentachlorophenol are undergoing a six-phase RED process. This action opens Phase 3, which is the public comment phase, with the release of the preliminary risk assessments (PRAs). During Phase 4, EPA considers comments and revises the risk assessments, as necessary. During Phase 5, EPA releases the revised risk assessment and discusses risk mitigation options and solicits the public's comments. Finally, during Phase 6, the Agency issues the final RED. The pentachlorophenol RED is scheduled for winter of 2007.

8. What has been the role of Canada's Pest Management Regulatory Agency (PMRA) in the development of this preliminary risk assessment?

These preliminary risk assessments are a cooperative re-evaluation between the U.S. EPA and Health Canada's Pest Management Regulatory Agency under the North American Free Trade Agreement. Both countries have contributed to the study review and peer review process. Exposure data used in the preliminary risk assessments were collected from both US and Canadian wood-treatment facilities and both countries are participating in the public comment process. As the assessments are finalized, EPA will continue to work closely with Canada since the goal of these efforts is to develop science and regulatory conclusions amenable to both agencies.

9. Where can I get further information?

For more information, email harris.monisha@epa.gov.

I. INTRODUCTION

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) was amended in 1988 to accelerate the reregistration of products with active ingredients registered prior to November 1, 1984 and amended again by the Pesticide Registration Improvement Act of 2003 to set time frames for the issuance of Reregistration Eligibility Decisions. The amended Act calls for the development and submission of data to support the reregistration of an active ingredient, as well as a review of all submitted data by the U.S. Environmental Protection Agency (EPA or the Agency). Reregistration involves a thorough review of the scientific database underlying a pesticide's registration. The purpose of the Agency's review is to reassess the potential hazards arising from the currently registered uses of the pesticide; to determine the need for additional data on health and environmental effects; and to determine whether or not the pesticide meets the "no unreasonable adverse effects" criteria of FIFRA.

Pentachlorophenol (PCP) is a general biocide which has been used extensively as a fungicide, bactericide, herbicide, molluscicide, algaecide and insecticide by agriculture and other industries including textiles, paints, oil drilling and forestry. Pentachlorophenol also contains chlorinated dibenzodioxins and chlorinated dibenzofurans (CDDs and CDFs) and hexachlorobenzene (HCB) as contaminants formed during the manufacture process. These compounds are inherently toxic, as well as environmentally persistent, and their presence may increase the ecological risk associated with the use of pentachlorophenol. Pentachlorophenol is only one of many sources of CDDs, CDFs, and HCB in the environment making it difficult to quantify the portion of the aggregate environmental risk from CDDs, CDFs, and HCB that is attributable to pentachlorophenol wood treatment uses. The main use of pentachlorophenol, as a heavy duty wood preservative, is to treat utility poles. Although its only remaining use in the U.S. is as a heavy duty wood preservative, pentachlorophenol has been used in rice and sugar production, in water treatment, as a pre-harvest defoliant in cotton, and as a general pre-emergence herbicide. It has also been utilized in numerous products including adhesives, construction materials, leather and paper. Pentachlorophenol is currently classified as a Restricted Use Product (RUP) when used as a heavy duty wood preservative and is predominately used to treat utility poles and cross arms.

This document presents the Agency's revised human health and ecological risk assessments and the Reregistration Eligibility Decision (RED) for pentachlorophenol. The pentachlorophenol case consists of one PC Code: 063001. Pentachlorophenol has been used as a wood preservative since 1936; however, the first pesticidal product containing pentachlorophenol was registered in 1950. For a list of the current products, please see Appendix A.

Currently, all of the pentachlorophenol produced in the U.S. is utilized in wood preservation. There are approximately 60 million utility-owned wood poles and 54 million crossarms in service across the United States which have been treated with wood preservatives (mainly pentachlorophenol and creosote; EPRI 1993). Approximately 36 million of the wood poles in service have been treated with pentachlorophenol (Malecki, 1992), and approximately

D. Methods and Rates of Application:

A summary of the pentachlorophenol registered uses is given in Table 1 and a more detailed listing is included in Appendix A. Pentachlorophenol is registered for use as a heavy duty wood preservative. All other uses have been canceled.

Table 1: Pentachlorophenol Use Site and Application Rates

Company Name	Label #	Product Name	Formulation
KMG-Bernuth, Inc.	61483-1	Penta 5 Sure-Treat Wood Preserver	RTU
	61483-2	Dura-Treet 40 Wood Preserver	SC
	61483-3	KMG-B Penta Ol Technical Pentachlorophenol	Intermediate
	61483-58	Pentacon-7	RTU
	61483-59	Pentacon-10	RTU
	61483-62	Vulcan GLAZD Penta	Technical

Note: RTU is Ready to Use, and SC is Soluble Concentrate.

E. Disposal Information

In a broad sense, two types of waste are generated through the use of pentachlorophenol wood preservatives: wood treated with pentachlorophenol and industrial waste generated through the application of pentachlorophenol. The disposal requirements differ for each type of waste.

1. Treated Wood

Discarded pentachlorophenol treated lumber is usually land disposed in either construction and demolition landfills, municipal solid waste landfills, or industrial non-hazardous waste landfills. Many state and local governments may have specific regulations, guidelines, or recommendations for the management and disposal of discarded pentachlorophenol treated wood, either explicitly, or sometimes under the larger category of "treated wood." Therefore, EPA recommends that persons contact their state and local authorities regarding specific policies or regulations concerning the disposal of pentachlorophenol treated wood.

EPA estimates that there will remain a supply of pentachlorophenol treated wood that will ultimately require disposal, considering the amount of this building material currently in use, and its typical service life (which can be many years). EPA continues to evaluate the potential impacts of land disposal of discarded pentachlorophenol treated wood.

2. Waste Generated at Wood Treatment Facilities

There are also hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA) that apply specifically to wastes generated at facilities where wood preservatives are used to treat wood. On December 6, 1990 EPA promulgated several hazardous waste listings applicable to wastes generated by wood treaters using certain wood preservative chemicals. (55 *FR* 50450; December 6, 1990 *Federal Register*). One of these hazardous waste listings (Hazardous Waste Number F032) can be found in the hazardous waste regulations at 40 CFR 261.31, and reads as follows:

a pesticide, treatment facility workers may be exposed to pesticides when handling treated wood and/or performing activities related to operating the treatment cylinder.

This presents two challenges for risk assessment. First, because very few chemicals are applied using retorts, limited data are available to estimate worker exposure. Second, because many of the Agency's exposure models were designed to assess risk from agricultural chemicals, exposure estimates are expected to be conservative and may not be representative of "real world" exposure. The Agency acknowledges these challenges and considered these and other factors when making its reregistration and risk management decisions.

B. Human Health Risk Assessment

Pentachlorophenol is a general biocide which has been used extensively as a fungicide, bactericide, herbicide, molluscicide, algaecide and insecticide by agriculture and other industries including textiles, paints, oil drilling and forestry. However, the only remaining uses of pentachlorophenol are as a heavy duty wood preservative. Pentachlorophenol also contains chlorinated dibenzodioxins and chlorinated dibenzofurans (CDDs and CDFs) and hexachlorobenzene (HCB) as contaminants formed during the manufacture process. However, pentachlorophenol is only one of many sources of CDDs, CDFs, and HCB in the environment making it difficult to quantify the portion of the aggregate environmental risk from CDDs, CDFs, and HCB that is attributable to pentachlorophenol wood treatment uses.

CDDs and CDFs have been identified as micro-contaminants in technical grade pentachlorophenol. CDDs and CDFs have been found throughout the world at low concentrations in air, soil, water, sediment, fish and shellfish, and other food products such as meat and dairy products. CDDs and CDFs are members of a family of polychlorinated isomers of "dioxin-like" compounds. Physical and chemical properties and toxicity vary with the degree of chlorination. The most toxic congener of the family is 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD).

The dioxin/furan contaminants of pentachlorophenol present a unique case for purposes of risk characterization. Up to 17 CDD/CDF congeners are produced as contaminants in the manufacture of technical grade pentachlorophenol. All of these contaminants have chlorine substitution in at least the 2,3,7, and 8 positions, thus imparting these contaminants with "dioxin like" activity. Thus, all must be considered in the risk assessment for the contaminants of pentachlorophenol.

HCB has also been identified as a micro-contaminant in technical grade pentachlorophenol, and is not a naturally occurring compound. It is present in the environment through emissions into the atmosphere due to the manufacture of PCP and numerous emission processes, industrial discharge of HCB containing wastes into waterways as well as due to the manufacturing processes of some pesticides. Since HCB is a micro-contaminant in technical grade pentachlorophenol, it must also be considered in the risk assessment for the contaminants of pentachlorophenol.

United States
Environmental Protection
Agency

Prevention, Pesticides
and Toxic Substances
(7510P)

EPA 739-R-08-008
September 25, 2008

Reregistration Eligibility Decision for Pentachlorophenol

Chemical or chemical category name	CAS number or chemical category code	Threshold (pounds, unless noted otherwise)
Aldrin	309-00-2	100
Benzo[g,h,i]perylene	191-24-2	10
Chlordane	57-74-9	10
Dioxin and dioxin-like compounds category (manufacturing; and the processing or otherwise use of dioxin and dioxin-like compounds category if the dioxin and dioxin-like compounds are present as contaminants in a chemical and if they were created during the manufacturing of that chemical	N150	0.1 gram
Heptachlor	76-44-8	10
Hexachlorobenzene	118-74-1	10
Isodrin	465-73-6	10
Lead (this lower threshold does not apply to lead when it is contained in stainless steel, brass or bronze alloy)	7439-92-1	100
Lead compounds	N420	100
Mercury	7439-97-6	10
Mercury compounds	N458	10
Methoxychlor	72-43-5	100
Octachlorostyrene	29082-74-4	10
Pendimethalin	40487-42-1	100
Pentachlorobenzene	608-93-5	10
Polychlorinated biphenyls (PCBs)	1336-36-3	10
Polycyclic aromatic compounds category (PACs)	N590	100
Tetrabromobisphenol A	79-94-7	100
Toxaphene	8001-35-2	10
Trifluralin	1582-09-8	100

B.4.a. How to Determine if Your Facility Has Exceeded Thresholds

To determine whether your facility has exceeded an EPCRA Section 313 reporting threshold, compare quantities of EPCRA Section 313 chemicals that you manufacture, process, or otherwise use to the respective thresholds for those activities. A worksheet is provided in Figure 2A to assist facilities in determining whether they exceed any of the reporting thresholds for non-PBT chemicals; Figures 2B-D provide worksheets for PBT chemicals. This worksheet also provides a format for maintaining reporting facility records. Use of this worksheet is not required and the completed worksheet(s) should not accompany Form R reports submitted to EPA and the state.

Complete the appropriate worksheet for each EPCRA Section 313 chemical or chemical category. (The worksheets can be found at the end of section B.4.) Base your threshold determination for EPCRA Section 313 chemicals with qualifiers only on the quantity of the EPCRA Section 313 chemical satisfying the qualifier.

Use of the worksheets is divided into three steps:

- *Step 1* allows you to record the gross amount of the EPCRA Section 313 chemical or chemical category involved in activities throughout the facility. Pure forms as well as the amounts of the EPCRA Section 313 chemical or chemical category present in mixtures or other trade name products must be considered. The types of activity (i.e., manufacturing, processing, or otherwise using) for which the EPCRA Section 313 chemical is used must be identified because separate thresholds apply to each of these activities. A record of the information source(s) used should be kept. Possible information sources include purchase records, inventory data, and calculations by a process engineer. The data collected in Step 1 will be totaled for each activity to identify the overall amount of the EPCRA Section 313 chemical or chemical category manufactured (including imported), processed, or otherwise used.
- *Step 2* allows you to identify uses of the EPCRA Section 313 chemical or chemical category that were included in Step 1 but are

ATTACHMENT 23

EPA 260-R-10-001
December 2011

Toxic Chemical Release Inventory Reporting Forms and Instructions

Revised 2011 Version

Section 313 of the Emergency Planning and Community Right-to-Know Act

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15646-96-5	2,4,4-Trimethylhexamethylene diisocyanate

N150 Dioxin and Dioxin-Like Compounds (Manufacturing; and the processing or otherwise use of dioxin and dioxin-like compounds if the dioxin and dioxin-like compounds are present as contaminants in a chemical and if they were created during the manufacturing of that chemical.) (*) This category includes only those chemicals listed below. [Note: When completing the Form R Schedule 1, enter the data for each member of the category in the order they are listed here (i.e., 1-17).]

1	1746-01-6	2,3,7,8-Tetrachlorodibenzo-*p*-dioxin
2	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin
3	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin
4	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin
5	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin
6	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin
7	3268-87-9	1,2,3,4,6,7,8,9-Octachlorodibenzo-*p*-dioxin
8	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran
9	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran
10	57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran
11	70648-26-9	1,2,3,4,7,8-Hexachlorod-benzofuran
12	57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran
13	72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran
14	60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran
15	67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran
16	55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran
17	39001-02-0	1,2,3,4,6,7,8,9-Octachlorodibenzofuran

N171 Ethylenebisdithiocarbamic acid, salts and esters EBDCs) (1.0)

Includes any unique chemical substance that contains an EBDC or an EBDC salt as part of that chemical's infrastructure.

N230 Certain Glycol Ethers (1.0)

$R\text{-}(OCH_2CH_2)_n\text{-}OR'$
where n = 1, 2, or 3
R = alkyl C7 or less; or
R = phenyl or alkyl substituted phenyl;
R' = H, or alkyl C7 or less; or
OR= consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate.

N420 Lead Compounds (*)

Includes any unique chemical substance that contains lead as part of that chemical's infrastructure.

N450 Manganese Compounds (1.0)

Includes any unique chemical substance that contains manganese as part of that chemical's infrastructure.

N458 Mercury Compounds (*)

Includes any unique chemical substance that contains mercury as part of that chemical's infrastructure.

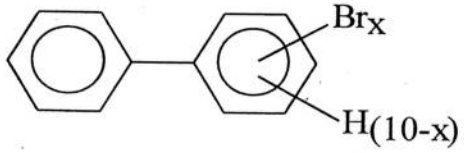
N495 Nickel Compounds (0.1)

Includes any unique chemical substance that contains nickel as part of that chemical's infrastructure.

N503 Nicotine and salts (1.0)

Includes any unique chemical substance that contains nicotine or a nicotine salt as part of that chemical's infrastructure.

N511 Nitrate compounds (water dissociable; reportable only when in aqueous solution) (1.0)



Where x = 1 to 10

N575 Polybrominated Biphenyls (PBBs) (0.1)

N583 Polychlorinated alkanes (C_{10} to C_{13}) (1.0, except for those members of the category that have an average chain length of 12 carbons and contain an average chlorine content of 60% by weight which are subject to the 0.1% *de minimis*)

$C_xH_{2x+2-y}Cl_y$
where x = 10 to 13;
y = 3 to 12; and
the average chlorine content ranges from 40 C 70% with the limiting molecular formulas $C_{10}H_{19}Cl_3$ and $C_{13}H_{16}Cl_{12}$

EPA 260-R-10-001
December 2011

Toxic Chemical Release Inventory Reporting Forms and Instructions

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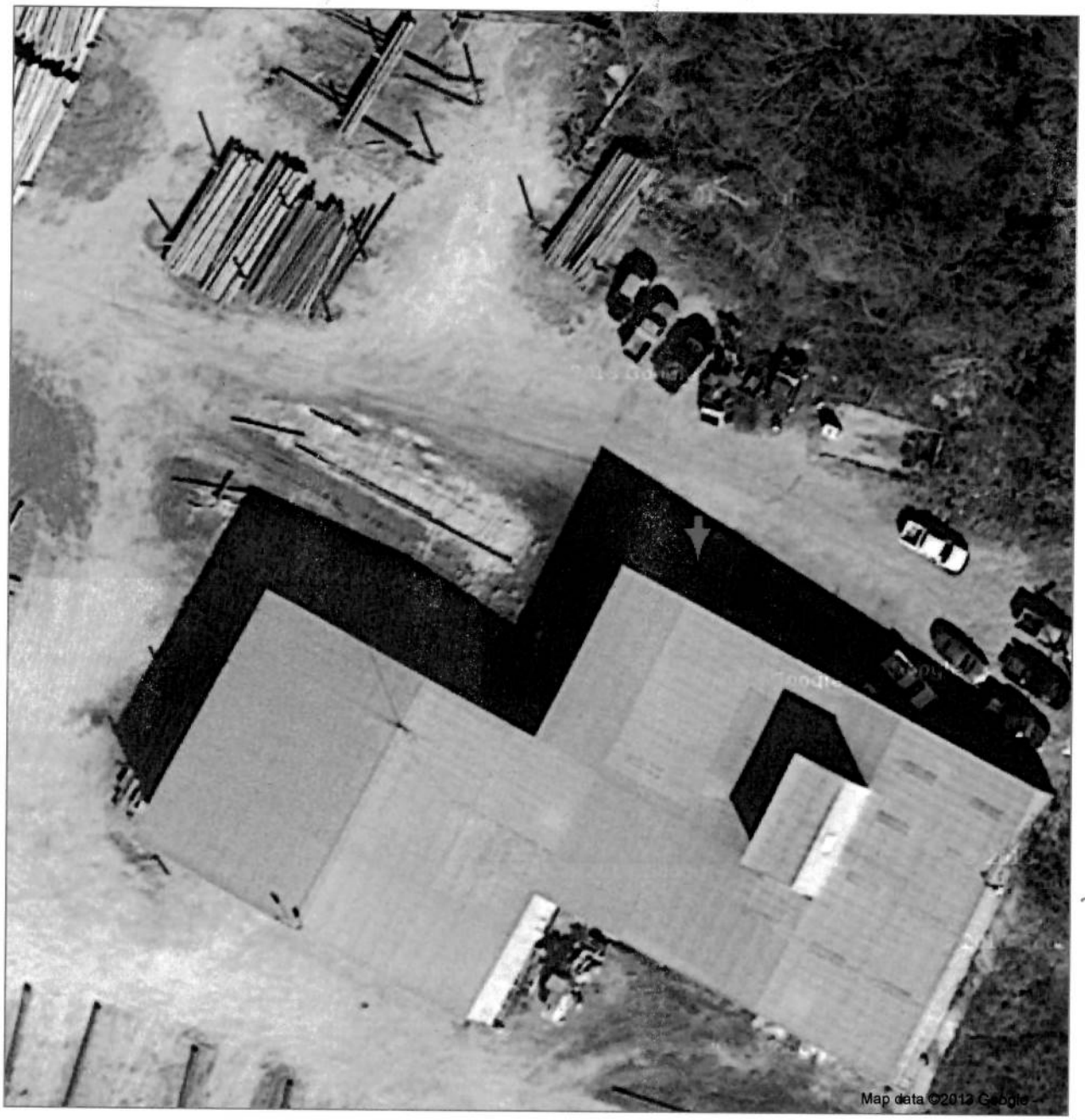
To see all the details that are visible on the screen, use the "Print" link next to the map.

Google

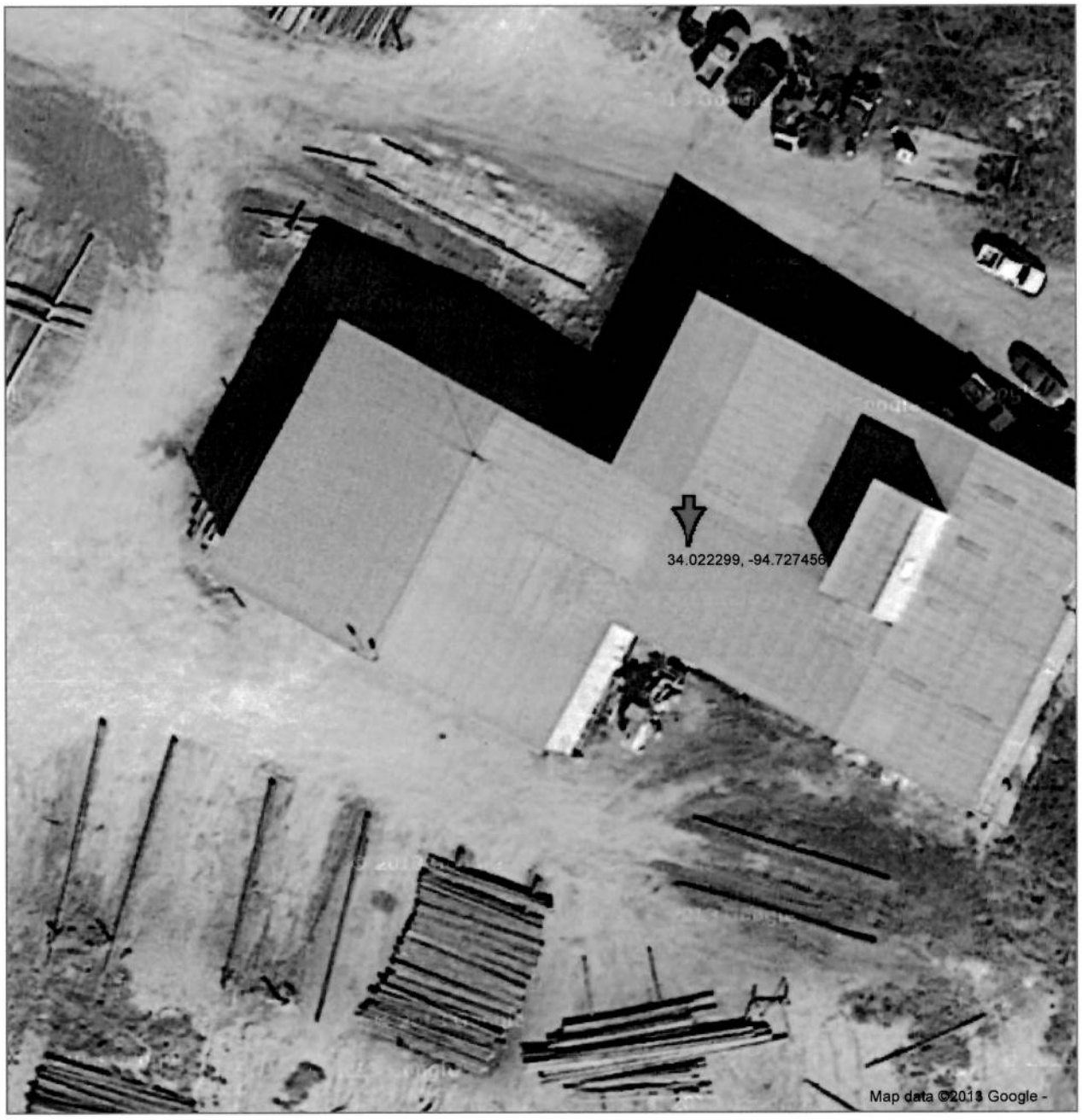


ATTACHMENT 25

INSPECTOR'S READINGS

To see all the details that are visible on the screen, use the "Print" link next to the map.

Google



ATTACHMENT 26

CENTER OF MANUFACTURE